

The Player's Power to Change the Game

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The Player's Power to Change the Game

Ludic Mutation

Anne-Marie Schleiner

Amsterdam University Press

I dedicate this book to my mother, Roberta Louise Schleiner (née Gittings), who introduced me to critical thinking at a young age. I never shared her love of sports, but games are close enough. And I did pick up her appreciation for science fiction.

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Introduction – The Player’s Power to Change the Game

In 1957, the Situationists penned a hopeful manifesto calling upon the revolutionary potential of play, for ‘the invention of games of an essentially new type’ (Debord, ‘Report’). The brief descriptions of these early Situationist capers and games that were actually played, not just theorized, recount exploring underground tunnel systems, occupations of Parisian railway stations, and spontaneous urban mappings (Debord, ‘Theory of the Dérive’). During the Situationists’ time, the object of resistance for such critical play was the capitalist, bourgeois routine of the city. Debord writes, ‘The situationist game is distinguished from the classic notion of games by its radical negation of the element of competition and of separation from everyday life. On the other hand, it is not distinct from a moral choice, since it implies taking a stand in favor of what will bring about the future reign of freedom and play’ (‘Report’).

More than half a century later, play does not seem to have realized its revolutionary potential entirely the way these young artists, architects, and writers envisioned. And yet, games may indeed have infiltrated everyday life only too well. McKenzie Wark describes an ominous growth of ‘gamespace’, an invasive agonistic, speculative, abstract game logic taking hold in global finance, education, narrative media, and other spheres once considered outside the game. He writes, ‘Play becomes everything to which it was once opposed. It is work, it is serious, it is morality, it is necessity’ (Wark). ‘Gamification’, a term that floats around marketing, software, and game industry circles, refers to the addition of gamic features to everyday activities that were once outside the game, like an electronic list of daily tasks on the mobile phone that rewards ‘the player’ each time an errand is completed or a grocery item is purchased. Gamified marketing schemes award points to loyal customers that later can be applied toward purchases. Joggers are motivated to run faster when they are chased by virtual Zombies on their smartphones and players insert their own health and fitness goals, from weight loss to injury recovery, into *SuperBetter*’s flexible, motivational framework.

Digitized student exams provide instant positive or negative feedback on the player’s answers. The ‘Quest to Learn’ public elementary school in New York City boasts of an entire curriculum, from math to history, taught through games.¹ Spectator entertainment has also been gamified.



Fig. 1: Washington D.C. Level; Call of Duty: Modern Warfare 2. 2009. Game Screenshot.

After being deposited on a desert island for weeks, or visiting a series of crowded foreign metropolises for the first time in their lives, the players of reality television shows like *Survivor* and *The Amazing Race* suffer through betrayals of allegiance and friendship, exposing their anger, tears, public humiliation, and physical exhaustion to the camera.

Of greater consequence, are the so-called serious games that train the soldier to conduct a flanking operation in the close quarters of the urban terrain of Mogadishu or Washington D.C. These virtual exercises prepare soldiers for both the killing of insurgents and for 'life-sustaining' refugee and hostage rescue operations. For instance, at the 2008 Serious Games Showcase and Challenge, three of four winners were military games on the topics of 'geo-location, military procedures of the Canadian army, and medical treatment of burn victims' (*Serious Games Challenge*). Soldier-players apprehend the protocols of 'Military Operations in Urban Terrain' (MOUT) at sites of urban unrest, for application in even Western cities once considered secure. The militant operations of the 'asymmetric' War on Terror, the war of a few among the many, thus find their way via games into civilian population centers; in the imagination and on the ground.²

The game also tightens its addictive hold over players who spend years of their lives playing Massively Multiplayer Online Role-Playing Games (MMORPGs), amassing digital items and participating in quests and battles, all the while advancing their character up the game's intricate hierarchy of classes and levels. At its most extreme, such virtual game labor is exploited as a form of Information Age drudgery in Chinese 'goldfarm' sweatshops. During the work day, professional players earn virtual gold in gamic economies for their bosses. At night, these workers hone their skills by playing these

same games ‘for fun’, before retiring to a communal dormitory adjacent to their game stations (Dibbell).³ Common to these varied accounts of playing the game, is the broader relevance of game beyond that of entertainment. Wark’s gamespace spreads into the world, into work, into economics, into the city, into art, into health, and into war. Frequently cited among game scholars is Johan Huizinga’s notion of ‘the magic circle’, a separate ritual-like sphere where voluntary play unfolds, either behind an imaginary border or within a literal barrier like the fence that separates the playground from the city and the school (10). Less widely referenced from his foundational treatise on play, *Homo Ludens*, are Huizinga’s investigations into the diverse roots of play in ancient cultures (32). Huizinga’s search for the elements of play in funerary rites, deadly Sanskrit riddles and pre-juridical Arabian contests presupposes that before modernity relegated play to the magic circle, play was on the loose amidst culture, confusing the rational boundaries of life’s necessary activities with the ridiculous, competitive, and flighty contests of the ludic (108). As gamification and serious games attest to, in the early twenty-first century, we may again be witness to a return to a similar savage confluence of the game with everyday life, a blurring of the boundaries between play and world.

Still, these allegations of the game overflowing into life may seem overblown, analogous to the media’s sensational critique of the effect of violent gun-shooting games on unbalanced youth. Are we really approaching *The Hunger Games*’ dystopian Hollywood depiction of a cruel, competitive, gamified society with no boundaries between play and life, or between play and death? In response to such reception criticism, and its implicit or explicit call for game censorship, many in the game industry and in game studies have tactically adopted a stance that clearly separates the game as a type of fiction, like literature or film-making, from the world. Although my project will make a case for greater scrutiny of games, an entertaining cultural region that is often not taken seriously enough (even as fiction) ultimately, whether or not games are becoming a dominant paradigm of contemporary life around the globe, is a bigger question that I leave to those in diverse disciplines from philosophy to the social sciences.

The skeptical reader may at least accept the more limited claim that games are an increasingly popular form of persuasive and communicative media. At the beginning of the US led War on Terror, the army captured the attention of young recruits for deployment in Afghanistan and Iraq by setting up game stations running *America’s Army* at high-schools in low-income neighborhoods. A government of a young nation teaches children about its older ‘national heritage’ by funding the development of *World*

of *Temasek*, a role playing game set during the emergence of Singapore's fourteenth-century spice trade. The Red Cross teams up with Yale University and Parsons School of Design researchers and students to develop the card game *Humans vs Mosquitos* as part of a health campaign to teach school children in Africa how to avoid mosquito-borne diseases.

The military, governments, and non-governmental organizations (NGOs) are not the only interest groups using games politically, persuasively, and even as blatant propaganda. Activists, artists, and protestors also comment on and critique current events, raise awareness and support for refugees, for natural disaster victims, for exploited workers, and use games to address other pressing concerns. One relatively early, deliberate attempt to make use of a computer game politically was *Escape from Woomera*, a modification of the *Half-life* action game from 2004. The game mod raised awareness of the plight of refugees who were subjected to human rights abuses in a remote government detention center in the Australian outback. The player launches on a quest to collect tools to escape from the facility, along the way encountering characters who share stories based on the trials of asylum seekers detained in Woomera.

Instead of raising awareness of the plight of others, some Games for Change aim to modify their players' own behavior and habits. Set in a near future without petroleum, Ken Eklund's *A World Without Oil*, is an alternative reality game that challenged players to devise and implement strategies to minimize their carbon footprint. After playing the game for a month, many players reported that their consumption habits had become less wasteful even after the game had ended. The tag line of the game was 'Play it—before you live it'.

The Game vs the Player

If we can at least agree that we observe a closer relation between games and activism, between games and war, between games and the city—in other words, an infiltration of games into certain regions of the world—we would do well to analyze the power of games. Rather than a revolutionary, freeing act of resistance as imagined by the Parisian Situationists, often the game imposes a kind of subjectification. To a certain extent, whatever kind of game it is, whether a military-themed, First-Person Shooter game, an online role playing game hinging on the exchange of digital artifacts, or even just an entertaining, casual game challenge of throwing cartoon birds with little correlation to worldly concerns, the game's rule space takes

over the player.⁴ As phenomenologist philosopher Hans George Gadamer writes of the player’s aesthetic union with a game: ‘Play fulfills its purpose only if the player loses himself in play’ (102). The game’s timed procedures demand reflexive acts from the player. The player engages with the game’s pre-programmed interactions, losing minutes and hours to the fascination of overcoming the challenge, and then ascends to the next, incrementally more difficultly-scaled challenge. Claus Pias compares the player’s race against the game’s digital clock in single-player action computer games to timed efficiency tests conducted on early twentieth-century factory workers, writing: ‘The similarity [between games and work] lies in that all work can be optimized following the rules of space and time studies’ (43). The player submits to the game’s regime.

And yet, players also design and play their own games, thereby seizing back some of that which was lost to the game. My underlying focus over the course of this book concerns this power grab from the game. I understand these acts as player-driven transformation of an existing game into another, as a transformative process I will refer to as *ludic mutation*. In what now reads as a prescient forecast of the mutable power of play, within a series of letters written to Kant, poet Friedrich Schiller invokes a dynamic ‘play drive’ as the aesthetic force behind art making, an ongoing tension between an abstract ‘formal impulse’ and a ‘material impulse’ (65). Schiller questions, ‘But why call it a *mere* game, when we consider that in every condition of humanity it is precisely play, and play alone, that makes man complete and displays at once his twofold nature?’ (79). The player’s power lies in creation, change, and modification of the game. The remaker of games sees the world not as a given, fixed place composed of static objects, but as *play material*, to be tweaked, hacked, altered, and reconfigured. Hardcore players bored with the existing conventions of shooter games modify the rules, challenging each other to finish guns-free ‘Zero Shot’ runs of *Halo*. A player augmented with a smart camera-phone intervenes briefly in the city’s work-a-day routines, racing through the streets of New Orleans or Christchurch to capture virtual landmarks and make strategic alliances in a game like *Ingress*. Such game- or world-changing may be of short duration, a brief displacement of the dominant game or setting’s normal procedures with a slightly different set of rules—and yet, even such temporary diversions have potential impact.

Over the course of this book, I conduct a critical analysis of player-driven changes to the game at varied scales and points of intervention, across gaming culture, in unique online communities of players, among artists, activists, and situated within the city—both in the digital game

city and the augmented city.⁵ Players modify and evolve game structures and genres, taking back the authorial reins of game-making from a risk-averse commercial game industry. Artists conduct chaotic aesthetic hacks of the game's programmatic engine, reducing military-themed shooters and car races to abstract surges of color and noise. Game-makers with critical agendas simulate the world's problems in miniature toy worlds, critiquing environmentally destructive fast food empires, and raising awareness of the plight of refugees. Activist players carry out protest campaigns of ludic resistance on the digital streets and public arenas of online game cities. And children of a near future city invent and play augmented reality games, with smart-glasses gadgets that they use as reprogrammable street toys.

Chapters

The first and second chapters may be of greater interest to play theorists and media researchers of participatory digital game culture. I discuss open and mutable play structures that support gender and identity experimentation. I also address creative approaches to gaming such as modding and world-building. Game genres are contrasted and evaluated for their potential to facilitate ludic mutation. In this beginning portion of the book, I implement a media archeology optic that looks backwards from the present to early game modifications exchanged over the internet of the 1990s and even earlier. This historical approach is distinct from the focus on the now of the game blogger or industry journalist who reviews only the latest commercial game releases and player trends. Similarly, the new media approach in academia risks blindness to recurrent play patterns and evocative, historical examples that have more to tell, even decades, or in the case of pre-digital games, centuries later.

The first chapter focuses on an open-ended example of game changing, an unusual and queer 1990s adult game known as *KiSS*. Artist-players shared these digital doll games freely with other players via online archives on the internet. When older players began to play, these games departed from the childish, domestic setting usually associated with doll play. Although this chapter's emphasis is not on the real-life identities of these international players, notably these games were created and played by an unusually diverse adult community that included heterosexual women and LGBTQ (Lesbian, Gay, Bisexual, Transgender, and Queer) players and game-makers.

The player-maker transforms the *KiSS* doll-character's attire and body with toy-like variability, arriving at a different ending each time it is played.

I call such changeable games that lack predetermined goals, but still conform to a chain-like, iterative structure, *unfolding games*. In this first chapter, I make a theoretical analogy between these sorts of play actions and the open-ended, aesthetic political actions of political philosopher Hannah Arendt’s ‘Space of Appearance’ (206). Modern understandings of political engagement, such as participation in formal systems like a representative democracy, or deployment of persuasive rhetoric, have little to do with playing soft-core, erotic doll games. Yet Arendt’s individually disclosive, performative actions are a formulation of political exercise that I argue fits such gameplay (198).

In Chapter Two, I analyze players’ appropriation and modification of commercial computer games. Contingents of players and amateur game-makers known as modders actively produce their own variations of commercial games. A game modification, or ‘mod’, might be a relatively minor change to the game; for instance, an early 1990s hack of a female character into the male turf of the militant First-Person Shooter genre. Or a mod might be an entirely new game with a new architectural level, thematic setting, and play style, referred to among players as a ‘Total Conversion’. Some mods have outlived and eclipsed the popularity of the original commercial game, such as the *Defense of the Ancients (DoTA)* mod of Blizzard’s *Warcraft III*, a strategy game of territorial invasions.

Modding entails an interaction between two distinct spheres of cultural production, on the one side professional and commercial, and on the other volunteered and gifted. This relationship between game developers and modders is imbued with inequalities and tensions. In this second chapter, I draw on Michel Serres’ multivalent figure of *The Parasite* as a key to understanding these complicated relations, approaching modding as a kind of parasitism or borrowing from a wealthier industrial ‘host’ (5). In addition to appropriation, the parasite also makes disruptive noise in the game system. Artist-made mods explore the chaotic pleasures of dismantling industrial game engines, reducing a photo-realistic First-Person Shooter game of militant competition to abstract fields of pixelated color and fragments.

Who is the biggest parasite in such cases—is it the player or artist who hacks the commercial game, or is it the commercial game developer who profits from the voluntary labor of player-modders? Critics of participatory digital share culture contend that voluntary digital labor constitutes a too easily exploitable ‘outside’ deliberately cultivated by Information Age industries (Terranova 79). Is research that valorizes participatory gaming also complicit with such exploitation? Are modders and other ludic mutators, like the youngsters who contribute to the universes of sandbox games

like *Minecraft*, the game industry's naive dupes? These questions of power and exploitation should be posed. Still, the rewards of participation are not only financial. For instance, modders derive creative, authorial satisfaction from designing a level or 'map', and the young apprentice or game hacker revels in learning the inner workings of a game system. As share economy advocates contend, prestige within a digital information community is also a form of recompense, although, again, the picture is complicated by the disparate exchange systems that commercial game developers and amateur modders inhabit.

Continuing with biological metaphors, instead of either parasitism or exploitation by the host, in other cases modding appears closest to mutually beneficial, symbiotic evolution. Players leave their mark through customizations and other changes, and, subsequently, the game industry incorporates some of these player innovations. Commercial games evolve in concert with the contributions of players, and some companies like Valve Software make it their policy to absorb innovative, player designed mods. That said, many play styles and themes developed in modding have ended up as evolutionary dead-ends, ignored by the game industry, even when lauded by other players. If a more open and inclusive game culture is to be hoped for, when does the game industry choose to ignore free contributions from modders? In this chapter, I identify moments when the modder's 'gifts' to gaming have been too feminine, queer, or otherwise divergent in play style to cross over into the industry.

The third chapter, 'Activist Game Rhetoric', explores rhetorical strategies relevant to activist, political, and persuasive games. In a genre of serious games that I label 'activist simulation games', game-makers model the operation of a harmful process in the miniature toy world of a game. Benchmark examples from this genre include Gonzalo Frasca's *September 12* simulation of a satellite powered air-striker for eliminating minute cartoonish Middle-Eastern terrorists. And in bold and cheerful colors, Paolo Pedercini of Molleindustria simulates the overseeing of environmentally destructive farming, cattle slaughter, and fast-food hamburger production in *Macdonald's Videogame*. The makers of these activist games are often one- or two-person independent developers who had the foresight that games need not be large, Triple A Hollywood productions. A political game can be a smaller and quicker, lower-fidelity expression, commentary, protest, or persuasive argument in motion, often stylistically belonging to 'the casual' genre of games made with relatively simple, cartoonish graphics.

Although appreciative of the contributions such pioneering activist gamemakers have made to the still evolving field of Games for Change, in

my view the time has come for a more critical evaluation of how such activists address a cause through game rhetoric. To better understand how an otherwise well-designed game might get in the way of an intended message or critique, in this chapter I draw on a tradition of philosophical thinking from outside the customary realms of game studies, interaction analysis, and design. Functional clockwork operations, the toy-like routines modeled in miniature in the simulation genre of activist games, are normalized when the player adopts a common-sense view on the workings of the world, what Martin Heidegger referred to as ‘everyday sight’ (107). While interacting with the instrumental toy world of the game, the player does not reflect on the damage such goal-oriented tasks cause in the outside world, for example on the effect of cleared tracts of rain forest on climate change, or the loss of civilian lives and cultural heritage resulting from war (105). The only way for an activist game-maker to awaken a player’s criticality may be to program the game to interrupt and sabotage its own play mechanics. When the operationality of the toy world breaks down, what I call the *broken toy tactic*, becomes a relevant approach for critical game design.

I also dedicate a portion of this chapter to discussing another tactical approach to making an activist game, one that borrows its rhetorical form from the commercial action/stealth game genre. In a *harrowing mission*, such as Susanna Ruiz’ *Darfur is Dying*, a refugee-child ventures from her camp to forage for water in the desert, hiding behind rocks from rampaging militia trucks. The player’s mission in such a relatively simple challenge is to find water and survive. If the game is effective, the player acquires empathy for refugees by walking for a short while in their shoes as a game character—albeit without actual hunger pains or experiencing physical violence or rape. Players may later contribute to a charity that supports refugees; for instance, *Darfur is Dying* directs players to a charity website mid-game. Or players may later adopt a stance supportive in other ways of persons undergoing a crisis outside the game.

The designer of a harrowing mission predetermines a fairly narrow path for the player to advance through the game. If the game were to offer the player a wider array of possible game actions and decisions—for instance, the option to steal water from other refugees—such choices might risk losing empathy for the alleged powerless victims of the crisis. Could a more open-ended game still harness rhetorical support for a particular population in crisis? Interestingly, *This War of Mine*, inspired by the civilian experience of the Siege of Sarajevo during the Bosnian War, is a refugee experience game that affords the player multiple branching decision pathways and many endings. But after making hard ethical choices and virtual sacrifices

in order to survive the siege, does the player end the game fearing refugees more than empathizing with them? This chapter critiques and explores these emerging rhetorical approaches to activist game making.

Of potential interest to culture jammers, urbanists, augmented reality researchers, and to political and military theorists, in the last chapters, Chapters Four and Five, I situate play and resistant ludic campaigns within the city. Games and digital toys are evaluated for their resistant or liberatory promise, in the face of the militarization of formerly civilian turf and the growth of a data-driven, mobile, control society (Deleuze). The fourth chapter, 'City as Military Playground: Contested Terrain', draws on theories developed outside of the humanities during the build-up of the War on Terror. Global military powers, in collaboration with serious games developers, the securities industry, and the entertainment industry, turn their attention not only outwards to sites of long-standing conflict, but also inwards to potential terrorist threats at home, to Paris, Washington D.C., or New York.

Players rehearse twenty-first century battle strategies in entertaining virtual game cities, with virtual mortar, machine guns, remote drones, bombs, and small elite units of professional combatants. Lessons learnt from the urban teamwork formations of Military Operations in Urban Terrain (MOUT) are then transferred to sites of live conflict. Some of the soldiers returning from deployment in Iraq or Afghanistan play these same 'Militainment' games in therapies devised by military psychologists to treat post-traumatic stress (Stahl). In this chapter, I explain military theories relevant to military games such as Full Spectrum Warfare and Asymmetrical Warfare. I also discuss 'post-mortem' reflections on combat game design from the game industry, walking through the components of what adds up to a militarization of the city.⁶

I then turn my attention to the 'artist's camp,' starting with the early formulations for urban play of the Parisian Situationist artists and architects. Information Age culture jammers both consciously borrowed from, and unwittingly reinvented earlier Situationist tactics. They accessed new publics over the internet and in online war games through their disruptive online protests. I once counted myself among such hacktivist artists who combined activism with hacking and in this chapter I discuss *Velvet-Strike*, an anti-war game protest I co-orchestrated. I contrast an artistic, disruptive, ludic approach to hacktivism to other approaches, such as transparency hacktivism and government whistleblowers. Is a playful and artistic approach to organizing protest actions even appropriate for raising awareness about serious concerns like the plight of refugees, the impact of globalization on exploited sweatshop workers, or animal species that are endangered by

climate change? Would it be better to treat these and other activist topics with more gravity? Toward the end of the chapter, I discuss a ludic and artistic turn within protest movements, both virtually and on the actual street.

In the fifth chapter, ‘Toys of Biopolis’, I analyze fictional, not actual, augmented reality games played throughout the episodes of Mitsuo Iso’s Japanimation television series *Dennou Coil*. The populace of Iso’s science-fictional Daikoku City become the subject of a city-wide experiment with mobile, augmented reality gadgets that project data and artificial life forms into the everyday urban habitat. The series hypothesizes the societal effects of this augmented reality technology that many predict as the next phase of digitalization, extrapolating from current mobile smart-phone usage. Episodes of *Dennou Coil* follow the augmented games and adventures of an intrepid set of girl-hacker protagonists, who are both technically skilled and cutely ‘*kawaii*’.

Outside of science fiction, recent technological experiments promise of similar mobile, wearable developments on the horizon. Upcoming pilot studies and recent prototypes include the Google-Glasses Explorer Project, Microsoft’s Hololens entertainment system, and Samsung’s patent for augmented contact lenses that communicate with the user’s mobile phone via blinks and eye movements. In the near future, envisioned in Iso’s science fiction animation series, a fluid web of informatic control is imposed upon Daikoku City’s citizenry via the electronic glasses and the wireless infrastructure that electronically tags every place, object, and person on the municipal grid (Deleuze). The series’ Japanese creator, in ways both comparable and distinct from Western science fiction counterparts like Cyberpunk, speculates on the societal impact of such innovations.

In this chapter, I draw upon theorizations of the biopolitical to explain an erasure of political space and everyday freedoms in Iso’s near future city. In what might be read as an especially Japanese and Asian depiction of youthful rebellion, these individual freedoms are sacrificed later in adulthood to the greater needs of the population and corporation, to a society configured as one big family. But despite a biopolitical conclusion to the series that seems to enforce traditional Asian family values, *Dennou Coil*’s earlier speculative scenarios predict similar privacy concerns to those that arose in the West in response to a 2014 Google Glasses pilot study. Northern Californian cafés and restaurants closer to Google’s main headquarters banned the glasses and ‘Stop the Cyborgs’ stickers were posted in public venues. The US Congressman Joe Barton, with bi-partisan support from other Congress members and from his constituents, sent a letter to Google raising privacy concerns about the glasses’ facial recognition capabilities

and data collection for the company. In Daikoku City, much like the most sinister fears of the detractors of Google Glasses, a corporation allows a variety of 'biocontrollers', including government, corporate medical researchers, and family, manipulative access to young citizen's data.

Still, I make the case that such gadgets are not inevitably hardwired for control and surveillance. In the second half of the chapter, I explore how the informatic hold that the city has over its inhabitants, and the biopolitical logic legitimizing this control, is broken and reprogrammed in the augmented reality games of *Dennou Coil*. The children of the series are continually inserting new games into the urban fabric. If the toy apparatus can be diverted from its control function through reprogrammable play, it may be that a vestigial 'polis', a free urban populace, lives on in the child characters of Iso's future Asian bio-control city. These kids are equipped with the power of disruptive play.

My original motivation for this research was to take a step back from my own practice and reflect critically on artist games, modding, and activist games. My hope is to inspire further game changing on a number of fronts, from art and entertainment, to political activism. From adult unfolding games of dolls, to avid player modding, to ludic activist campaigns on digital streets and hard pavement, to the near futureware augmented reality toys and games of children, *Ludic Mutation* explores the potential for channeling the power of games back through the players' hands. The book concludes with a synthesis of the tactics covered across my examples of ludic mutation. In this final 'Tactical Sketchbook' chapter, I contrast a critical, 'negative' tactical stance that resists a system from within, to ludic mutation that more evasively steps outside to invent a new game. My framing of these practices is intended to critically illuminate the power of the game over the player, as well as to offer hope of changing the game.

1. Lightness of Digital Doll Play

What can a curious game known in Japanese as *Kisegeau Ningue*, or changing clothes doll, offer the game designer, cultural critic, or media scholar? This first chapter revisits an early phase of the Web in the 1990s in order to analyze an open-ended game known by its once-active community of creators as *KiSS*. Queer, edgy, erotic, light-hearted and comical, interactive digital *KiSS* dolls are my first example of *ludic mutation*. Players performed transformative play with doll avatars, experimenting with projecting fantasies of becoming other genders, creatures, and imaginary beings onto player-created characters. As a free of charge, Do-It-Yourself digital craft, these games are free from the market pressures found in many commercial games. Although the attraction of role-playing games is often attributed to the draw of a liberating escape from everyday life pressures, in comparison to the open-ended fluidity of *KiSS*, a popular, mainstream game like *World of Warcraft* constrains the player's experience of the game via their character in a number of ways. *Unfolding game* is the genre term I propose to use for open-ended, generative, iterative games like *KiSS*, whether digital or otherwise. An additional feature of many unfolding games is that they produce unique artistic results each time a game is played.

What follows the presentation of this chapter's cultural object, the *KiSS* doll and a few of its earlier historical precedents, is an attempt to map the conditions that facilitated the growth of a creative and diverse online community of player-makers. International adult players remixed these digital doll games each time the game was played, turning their dolls into soft-core digital erotica. *KiSS* games thus break from the domestic setting and the roles commonly associated with women's and girls' dolls, the private domain of household 'necessity' that political philosopher Hannah Arendt describes as 'the oikia' (24). I will appropriate from Arendt her generative divide between a household, economic sphere of vital necessities vs a freer, aesthetic, public arena, hazarding a stretch of her public 'Space of Appearance' to encompass the anonymous, online, collaborative identity play of *KiSS* (199). This chapter, then, becomes an introduction to and an appropriation of Arendtian biopolitics, a critical and theoretical framework that will be picked up again in Chapter Five's analysis of augmented reality games. Additionally, in the theoretical portion of the chapter, when I analyze identity construction in unfolding games, I discover unexpected common ground between Arendt's philosophical focus on action in 'disclosive tales of the who' and Judith Butler's emphasis on gendering as an active process.

The *KiSS Doll*

The *KiSS* computer game surfaced during the early stages of the internet, fading from use around the turn of the millennium. In the mid-1990s, anonymous programmers digitized the paper dolls printed in the back pages of Japanese comic books, commonly referred to in Japan as 'manga'. The freely downloadable game software was taken up as an adult erotic play practice among an international cadre of digital doll makers. A changing-clothes doll could be created by a single author or collaboratively drawn by multiple artists in a '*KiSS* Jam Session'. The author(s) of the doll set first drew the doll's clothes and accessories over ten sequential picture screens, and when finished uploaded the doll to websites like Otaku World.¹ Secondly, players—who often were also the authors of other dolls—downloaded the digital doll, and reconfigured the ten screens of doll body and accessories.

In each picture frame, the player rearranges the doll's clothes on the screen, and occasionally also moves and removes appendages and organs from the doll. Interactive *KiSS* dolls contain hot spot areas on the screen that play a sound file, a moan, or a pithy comment from the doll, in response to the computer mouse cursor rolling over sensitive body parts. No longer a dress-up doll for little girls, a *KiSS* doll was undressed as frequently as it was dressed. Dolls switched genders and cross-dressed, wielded fetish instruments, and grew fox ears and a feline tail. A miniature doll body might be revealed beneath drag-able robotic appendages, or the doll might be inspired by a popular figure from Japanese Anime, the



Fig. 1.1: Leena Felinsky, a 'furry' animal fetish doll allegedly by Kim Galvas. The background behind the *KiSS* doll consists of the icons from the graphics applications she used to draw the doll; 1999; Game Screenshot.

Hollywood film industry, or from art history, such as a doll version of Michelangelo's David sculpture. Fantasies both naïve and queer, asexual, violent, and pornographic, were mapped onto the surface of the digital doll body.

From Dolls to Avatars

The digital age did not bring about the first appearance of such changeable games. Women's and children's paper dolls have been popular toys and crafts since the ready availability of paper in the eighteenth century. The modern fashion paper doll was dressed in changeable outfits designed to wrap seamlessly around the doll's figure. A paper doll and its fashion accessories were drawn by the player herself or the doll's clothes might be repurposed from other sources like a newspaper or a catalogue. In Western Frontier towns of the United States, children cut out clothing from mail-order Sears Robuck catalogues to dress the dolls of their collaged paper 'scrapbook dollhouses' (Flanagan 28). Scrapbooks and paper dolls are not unique to the Americas, and variations of this women's and children's craft can be found across the globe in both home-made and more commercialized formats. The Japanese comic book dolls directly prefiguring digital *KiSS* dolls were purchased with all their components and forms ready to cut out.

Although what a doll is may seem obvious, as Flanagan notes, the toys and 'games of women and girls' such as dolls are an under-appreciated play form in game studies. Their relatively unconsidered and subordinate stature in comparison to other games and sports probably stems from their connection to the 'non-public,' feminine, domestic sphere (31). A prevalent and older idea of the doll is the infant that prepares a girl for the properly domestic, reproductive labor of mothering. For modern girls (and boys), infant human dolls asking for maternal nurture are not the only toy figures populating their imaginaries—other toys; a teddy bear, a robot, or a green, one-eyed monster represent imaginary playmates and play parts in childish fantasies. And as Flanagan argues with convincing historical examples, even domestic dolls can be played subversively. In her media archaeology of 'critical play' forms, Flanagan refers to doll house scenes of labor strikes and funerals as evidence of historical doll play that resisted Victorian notions of domesticity (32).

Paper dolls, associated with a feminine interest in fashion, invite the child to imagine her future at an older age acting in the larger world. She dresses her doll up for make-believe private and public (non-domestic)

adult functions: for work, college, parties, or vacations. The paper doll is a manifestation of the little girl's fantasies of adulthood and femininity that reflects the expectations of women of her time, culture, and class. Although the paper doll is already imagined to be an actor in the adult world, *KiSS* dolls enter into even more adult territory when older players participated in doll eroticism and fetish play. And in contrast to the subversive doll house scenes described in Flanagan's chapter of *Critical Play* dedicated to dolls entitled 'Playing House', *KiSS* dolls are seldom contextualized within the everyday, domestic stage of family and home. Drawn against blank white, or framed within a sparsely defined backdrop, these dolls' context and setting is largely undetermined.

The digital characters that I am referring to as dolls can also be compared to other digital age characters who represent and are controlled by players online, such as digital avatars. An avatar is a protagonist character controlled by the player of a computer game or by users of other interactive graphical forms like chat spaces. Both the general public and game researchers often understand games as a masculine field, as entertainment spaces that function as contemporary lodge houses where boys transition into manhood. Meanwhile, dolls are typically viewed as feminine toys, and game avatars have seldom been analyzed as dolls. But there are many similarities between dolls and avatars. For instance, during the 1990s, at the same time as *KiSS* was played, players of First-Person Shooter games like *Doom* and *Quake* would customize their avatars' appearance in a specialized form of game modification known as 'skinning', dressing up their avatars in customized outfits and occasionally experimenting with identity and gender.² Similarly, for a *KiSS* game author, the doll becomes an alternate projection of a player's self on the computer screen, similar to the digital avatar.

The Collaborative Unfolding Game

Another pre-digital age, historical precursor for *KiSS* doll-type games appeared in the Avant-Garde gatherings of Surrealist artists in Parisian cafes and bars. Motivated by an interest in the irrational, chance associations of the unconscious, Surrealist artists designed a game of drawing and collaging body parts. In a game of 'Exquisite Corpse', 'Rotating Cadaver', or 'Sequential Drawing', while seated around a table, each player drew one segment of the body on a fold of paper and passed the paper on to the next player, who would then add head, body, torso or leg on a separate, hidden fold.



Fig. 1.2: Exquisite Corpse Drawing by Parangari Cutiri and Luis Hernandez Galvan, June 2016, print.

The chain-like, sequential iterative protocol of an Exquisite Corpse game is similar to the generative process of creating a collaborative *KiSS* doll. Each author of a collaborative doll set draws one digital frame and then passes the doll to the next author over the internet, at the end of the game revealing a surprise outcome for all creators.

Whether played on paper napkins, collaged catalog cut-outs, or on the computer, such a game of mixable components that add up to a unique combination each time the game is played is what I have been referring to as an unfolding game. The final result of the drawing of the Surrealist ‘cadaver’, or the final appearance of the *KiSS* doll, cannot be precisely predicted: the more surprising the outcome the better. This contingency of outcome contrasts to games that culminate in a pre-determined end-game state, such as the final checkmate of a round of chess. In an unfolding game, an unimagined outcome emerges from a nevertheless structured, chain-like play protocol. Although subject to fixed rules and parameters (in each of a chain of ten sequential visual frames there will be a doll body with interactive parts), the unfolding game is a generative toy. At the interstices of play and art-making, players participate in a creative, performative process. The unfolding game results in a unique art or craft object, the drawing or record of a particular game.

Like the sequential chain of creative play moves of an Exquisite Corpse game played around a cafe table (yet with more of time lapse between each asynchronous move), in a *KiSS* Doll Jam set, each artist takes a turn to draw a frame of the set and then, when finished, to email the doll to the next artist. For instance, the ‘King in Yellow’ (allegedly a woman) orchestrated ‘the David Project’, inviting seven female-identifying artists to each contribute

a different outfit for a doll figure of Michelangelo's David sculpture. In the resulting doll, David, at turns, wears a computer-geek T-shirt, fishnet stockings, disco bellbottoms, and green lederhosen, resulting in a teasing dollification of a revered, art historical character. In such *collaborative* unfolding games, each piece created by a different player adds up to a makeshift whole.

Obsessions, hobbies, and predilections that have induced players to participate in the arena of *KiSS* include an interest in drawing, in fashion, in Japanese anime-style artwork and characters, in eroticized 'Furry' human-animal hybrids, in gender exploration, in drag and transgending, and the desire to strip fetishized doll bodies. A player's gender, age, occupation, and origins mapped to profiles, such as Canadian female college student of Asian immigrant origin, New York cyber-artist, middle-aged German male information technology worker, adamantly heterosexual Italian male programmer, and gothic Spanish drag queen.

My intent here is not to systematically profile *KiSS* doll players and their queer desires and proclivities. This analysis allows players to remain hidden behind their dolls and pseudonyms, their anonymity potentially a source for further experimentation. I mention these brief profiles in order to underscore the diversity and plurality of the *KiSS* 'community'. The open, free to make, play and share protocol of the game is the primary commonality that binds *KiSS* players of various genders and nationalities together, evident from the 'free to play' logo pasted onto the frames of many dolls. Players are also potential collaborators, sharing access to internet protocols that facilitate exchange and interaction, such as passing a game over the internet to other volunteering participants of a collaborative doll set.

Such a plural, communal platform that is theoretically open to erotic diversity can veer into a dystopia, when players are luridly misogynist or create disturbingly childlike, pornographic dolls. Both shielding and dangerous, an anonymous virtual space of encounter is an invitation to the shy and the sexually curious to enter public online gathering places, online 'agoras'. Insulated from the more painful consequences of flesh to flesh encounters, digital play is immune from physical rape, sexually transmitted diseases, and the normative pressure of biologically-based gender roles and cultural scripts invoked during live encounters. *KiSS* players often used separate email addresses to obfuscate any trails leading back to their official identities, operating under the liberating anonymity of the pseudonym. Paradoxically, this virtual freedom, within which the specter of the child molester lurks, is also the terrain where women can more safely engage in erotic playfulness.

Ludic Mutation vs Ludic Statis in MMORPG's

A constructive divide separates game and not-game, the border at the periphery of the game and the rest of the world. An alternate universe is available to the anonymous user on the computer screen where, theoretically, his or her real world identity and behavioral routines can be left behind. Historian Johan Huizinga referred to the space of a game as the 'magic circle of play', defined as a separate play space from everyday life (10). According to anthropologist Victor Turner, within a game's liminal setting, similar to the other-worldly celebration of a carnival, players are free to experiment with becoming others (24). Alternate rules are in effect, distinct from the routine norms of everyday life.

But such free, transformative play is not readily performed in all games. In many games, play conforms to a fairly rigid pattern. According to the sociologist Roger Callois, some games are more weighted toward the rule-bound 'ludic' characteristics of the game, rather than toward open-ended play.³ Players are additionally often expected to follow the constraints of a game's genre. Codified computer game genres include military shooter games ('First-Person Shooter' or FPS), role-playing games ('Massively Multiplayer Role-Playing Game' or MMORPG), and real-time battle strategy games ('Multiplayer Online Battle' or MOB).

In order to better understand how an unfolding game like *KiSS* compares to some of these other genres, I will profile an escapist computer game fantasy genre that is also often assumed to be liberating. In a MMORPG game like Blizzard's *World of Warcraft*, which launched in 2004, players accumulate virtual 'loot' (gold and treasures) through exploration of a mythic Tolkienesque world and wage contests against magical creatures and other players. They use their virtual currency to improve upon and augment their game characters' magical powers and weaponry. Economist Edward Castronova distills the upward-bound, competitive economic formula of such role-playing games into a few sentences: 'Define a series of *roles* (such as "scout") for players to assume and use game mechanics (a set of options and consequences) and AI to get people into them. Establish an *advancement system* to reward certain behaviors (treasures in the cave that allow you to buy better armor). Generate *status* inequality so that rewards matter (most villagers don't have treasure)' (107). Such games incentivize fun and addict players with these competitive reward systems.

Also unlike an unfolding game, MMORPG games are fiercely hierarchical. Players occupy tiered positions within their 'guilds' (teams), and the guilds are also ranked in comparison to other guilds in the overall game universe. Players

meet with other guild members at pre-scheduled playing hours, much as an employee is expected to appear at work for certain hours. And like a real life job, MMORPG players can be 'fired' from a guild if their teamwork and player vs player (PVP) kills against opposing factions and creatures are insufficient. The rewards and punishments of such games mirror the specialized activities and set advancement channels of a modern career, albeit occurring in Elvin and other fantasy settings. Moreover, they offer the seductive security of a more ordered, play-by-rules progression lacking in an outside of the game career.

In contrast to the unfolding game, in the MMORPG game form, reputation becomes so important over the years invested in leveling up just one game character, that the player loses the opportunity for anonymous identity experimentation with different characters. For instance, although a male office worker can escape the supervision of his parent, wife, or boss in 'real life' while role playing as a powerful female Elven Mage in an MMORPG, ultimately there is little escape from the worldly pressures replicated in the virtual society of the game world, the pressure from other players on the Elven Mage character to conform to in-game behavioral norms, and from demands to contribute to the game world's extensive in-game economy. As Castronova writes, with the intention of promoting the 'social benefits' of the genre: 'M.M.O.R.P.G. advancement systems are especially suited to restoring meaning to our activities, because they place our struggles in a context marked by the presence of other people' (112). Yet, over time, this intensified, artificially-engineered social and economic significance becomes a weight to bear for players, even sometimes negatively impacting outside the game relationships and work. After an extensive investment in the player's reputation in-game, the risks associated with the experimentation and rapid transformation of characters for instance, as players would do in a relatively shorter unfolding game, are too great. No matter how other-worldly and fantastic the setting, whether set in outer space, in a Tolkienesque Middle Earth, or a Folkloric Wuxia Chinese Dynasty, the economic and social pressures replicated in these massively populated game worlds tend to diminish the opportunity for liberating play.

A Virtual Space of Appearance

How can a role-playing game avoid replicating social constriction, and instead facilitate liberating transformation and open experimentation with self? Which conditions were present that allowed for ludic mutation to flourish briefly with *KiSS*? Such questions of liberation, freedom, and game

aesthetics bring me to political philosophy and gender theory. This more theoretical portion of the chapter will also provide a critical framework for some of the other forms of ludic mutation in subsequent chapters. I will appropriate Hannah Arendt's political philosophy in order to describe the conditions that allowed for pockets of online free play to emerge. In so doing, I will stretch Arendt's notion of freeing aesthetic political actions to encompass games, taking license with her categorical distinctions, including disregarding Arendt's dismissal of play and 'hobbies' like art as trivialized, leisure pursuits of the Industrial Age (128). Viewed through a more muted lens, the digital doll game phenomenon can be dismissed as an escapist hobby, as superficial, anonymous experimentation in a safe, virtual closet. Still, no matter how passing, ephemeral and limited the occurrence of such games, and no matter how frivolous, queer, and possibly very gay, even in contrast to other computer games, the point of this chapter is to understand how *KiSS* games foster liberating, transformative play.

In order to play *KiSS*, players participated in a public online platform, which, I suggest, approximates a virtual 'Space of Appearance'. At the end of her foundational treatise on politics and philosophy, *The Human Condition*, Arendt empties politics of material economic 'necessity' and social pressures, clearing the way for her aesthetic and agonistic Space of Appearance, a liberating public space of collaborative, aesthetic 'words and deeds', suggestively drawn from ancient Greek politics and culture (199). Although she does not define the Space of Appearance with detailed examples, Arendt suggests the space is not only for political discussions, but also for poetry, tales, drama, and agon—for contests and competition. If this space can encompass such creative, dramatic, and playful activities, then why not also allow for digital unfolding games?

Let us rehearse with more rigor the conditions that Arendt contends are necessary for a freer and more creative political sphere. Arendt's barrier surrounding her Space of Appearance blocks out the 'actions of necessity', the economically motivated actions of labor and work that, in her analysis, are closely bound to the demands and hierarchical roles of the private domestic sphere, at least historically. Arendt's critical approach to the domestic sphere of necessity, and her historical identification of a transferal of family functions from the household to the modern state and to the national economy, has been more recently taken up in biopolitical critique. One could—perhaps erroneously—imagine that the *Human Condition* was written with a female philosopher's sensitivity to the toils and the vital economic relevance of the domestic—even as Arendt's appropriation of an Aristotlean liberating partition between public and private continues

to garner both feminist and Marxist criticism for excluding material and domestic concerns from politics.

The uniqueness of Arendt's analytical trajectory becomes apparent if we indulge in a brief contrast of Arendt's liberating divide to Jean Baudrillard's oft-cited, dissolved border between public and private. In *The Ecstasy of Communication*, Baudrillard's critique of post-modern information saturation laments a breach of the private sphere. The advertising slogans and communication media of 'InfoCapital' enter the home through the glare of the television screen, and an invasive communications apparatus illuminates what was previously hidden behind 'the scene and the mirror', revealing the private, charmed and 'secret' (25). Although the inhabitants of Baudrillard's once private domesticity of a bygone era remain shadowy (are they mother, father, brother, servants, masters, mistresses?), Baudrillard's writing is imbued with a nostalgia for a domestic privacy, a longing for comforting repose from the blinding, 'obscene' light of modern communication media like television (21).

Writing thirty years earlier, Arendt likewise sketched a broken border between the public and the private; yet, in contrast to Baudrillard, Arendt's vector of infection originates from within the private, not from without via modern communication technology (34). Arendt approaches the private domestic scene with a decided lack of romanticism. In her chapter on the private and the public spheres, she identifies a specifically 'French' enchantment with the private sphere that could apply to Baudrillard's mood of domestic nostalgia: 'Since the decay of their once great and glorious public realm, the French have become masters in the art of being happy among "small things", within the space of their own four walls, between chest and bed, table and chair, dog and cat and flowerpot' (52).

For Arendt, the household is not what has been invaded, but is the original site of contagion, the 'oikia' of Pater Familius, of women and of slaves in classic Greek antiquity (33). Over time, the household's repetitive domestic 'natural' rhythms of upkeep, cleaning, eating, reproduction, human survival, and the household economy's attendant controlled subdivisions of labor, infiltrate and 'domesticate' what was once a freer, public, political arena. Over the course of Western history, household business becomes a public managed matter (from feudal household oikia to national economy), and mercantilism pervades the political demos (28). In modernity, states begin to concern themselves with 'housekeeping', nations attempt to act as families, and household managerial logic evolves into an alienating telocratic 'mass society', as invasive of both the public and private spheres as the blinding glare of Baudrillard's Infocapital. In other words, in contrast to

Baudrillard's longing for a lost domestic tranquility, in Arendt's biopolitical analysis, the classic household of antiquity itself is the origin of a pervasive social control.

Over the chapters of *The Human Condition*, Arendt's account of the public/private border transgression moves hopefully backwards, so that ultimately she vacates politics of 'necessity', clearing the way for her agonistic and aesthetic political action sphere. As Dana Villa puts it, the 'negative' critical phase of Arendt's project is her Heideggerian deconstruction (Abbau) of 'the vita activa', the life of action, travelling back through Marx, Nietzsche, Kant, St. Augustine, Socrates, Plato, Aristotle, and others (114). Arendt underscores an inordinate bias for the still 'contemplative life', both in classical philosophy and later in Christianity, over action (14). The tradition of Western philosophy relegates all that is necessary to an inferior realm of action; the mercantile, cycles of tedious labor and upkeep, and the work of Homo Faber, man the maker of 'artificial worlds' (136). Having abandoned the life of action, including politics, to makers and workers, Arendt proposes that philosophy is powerless to defend against the rampant instrumentalism of the social; against modernity, bureaucracy and the state's incursions. Yet, the life of collective *action* could be otherwise, and thus the suggestive contours of Arendt's aesthetic Space of Appearance, a space of action and speech—not philosophical contemplation, a space intended for actions that are neither paid work actions, nor laboring domestic actions.

Let us come back to this chapter's object of analysis. After Arendt's negative deconstruction of politics and philosophy, the very lack of positive specificity to her emptied Space of Appearance can be read as an invitation. What is aesthetic, open-ended political action that is neither work, nor labor? 'Disclosive tales of the who' could be the unfolding moves of a game (182). Digital dolls and their creators loosen their moorings to identifiable subjects and bodies, to predetermined barristers of value, and to fixed endings. Released from gravity, players and digital doll makers do not know who they will ultimately reveal through their unfolding actions and ephemeral, collage-like remakings.

The doll game is shielded from the older offline world of roles and domestic duties—parents, spouses, children and co-workers are generally not who one engages in anonymous erotic play on the internet. The doll games are also insulated from colonizations by online and offline capital and governance. Unlike commercial games like *World of Warcraft*, *KiSS* games are not managed by a computer game company—the doll software is costless and designed by players. Unbound from domestic and capital demands, 'the world of necessity', digital doll bodies transition between

sexual and cultural stereotypes, furry, pawed and antennae, girlish and manlike. *KiSS* dolls exercise a greater range of transformational freedom than their human creators are free to exhibit in the workplace, the home, the school, and related social settings.

Gender, Identity Play, and the Active Disclosure of the Who

Arendt adopted a phenomenological approach to the creative construction of 'the who' through action. Another influential thinker from a different era, Judith Butler also stressed the importance of *action* in her work on performative gender and identity formation. She famously and controversially recast gender as a verb, as an active process, rather than a noun or an attribute (33). Gendering is continuously performed through iterative role play, in negotiation with and against the 'binary matrices' of gender norms (23). Butler's notion of gender is not predetermined by culture, religion, biology, or society at birth. Gendering requires persistent regulation and relearning, repeated lessons, re-enactments, subversions, and negotiations between many forces. She writes '*woman* itself is a term in process, a becoming, a constructing, that cannot rightfully said to originate or end' (43). Gender norms have a tendency to impose 'regulatory fictions' that naturalize gender as an originary substance of being (44). When subjects act outside of these naturalized gender norms, (unless they manage to overturn them), their failure to conform to categorical distinctions is construed as monstrous and queer. In *Gender Trouble*, identity takes shape through a subject's early acts of gendering.

What is the link between Butler and Arendt? What does gender and identity construction, Butler's theory that evolved from Michel Foucault's juridical investigation of subjection and subjectivity, have to do with Arendt's more philosophical 'disclosure of the who'? (Butler 4). Both Butler and Arendt stress action over normative markers and substances, (the what). For instance, Butler invokes Nietzsche's contention that there is no being behind doing, that the doer is a fiction added to the deed (Butler 33). The who in Arendt's Space of Appearance is also revealed (disclosed) through his actions, his deeds—he does not have an 'identity' prior to action (Arendt 179). While both Arendt and Butler argue that identity emerges through an active process rather than existing as a prior essence, Butler's work more directly addresses the back and forth workings between actions and, in Arendt's terms, society's pre-existing 'rules' for identity and behavior, what Butler refers to as 'regulatory fictions' (Arendt 40; Butler 44).

Butler questions, 'What kind of practice of subversive repetition might call into question the regulatory practice of identity itself?' implying that repetition, a tool used in the repeated, performative re-enactment of identity, might also be applied subversively to undo gender-identity regulation (42). To return again to this chapter's cultural object, the unfolding game is one possible literal answer to Butler's question—a repetitious yet simultaneously subversive unraveling of identity unfolded through play. Proceeding in a modular, chain-like, additive fashion, a copy of a *KiSS* doll body is replicated to each frame of a doll set, and this body mutates in syncopation along with accessories and clothes over the ten standard frames of the viewer.

Take, for instance, prolific doll maker Glyndon's cross-dressing, gothic, trans-sexual 'X' doll. X starts off as a woman in frame set zero, but acquires a phallus in frame set one, and loses his breasts in frame set two. X's feathery lace and leather garb is redrawn for the body the doll happens to be wearing in each frame. The repetition of doll bodies, in conjunction with variations, transform the doll's identity over the sequential duration of the doll set. Some *KiSS* dolls address other identity axes, like that of human to animal, in addition to gender. Transgressing a species border, Kim Galvas' 'Furry doll' cycles through outfits, growing or losing a tail, whiskers, and other parts. Normative distinctions and regulatory fictions are unfolded in such carnivalesque games, and potential 'who's' are unveiled through play actions.

Sophisticated ludic mutation may employ more understated identity construction than binary ping-ponging between opposites like male vs female, or human vs animal. In a ludic Spaces of Appearance, mutable characters are constructed and remixed with an interstitial subtlety developed after hours of play. In an ethnography of play based on the 1990s online, text-based, role-playing game *LamdaMoo*, self-labelled heterosexual Julian Dibbell confesses to a delightful 'gauzy' sensation induced by online cross-gender play, describing the cultivation of a taste for 'nothing quite so much as for that of thoroughgoing entanglement itself' (121). In a chapter titled 'Samantha Among Others', Dibbell recounts his own learning curve as a player in character transformation, beginning with the construction of his first cross-gender character, an exaggeratedly feminine, cartoon-like, uncomplicated 'Samantha' character, who he eventually tires of playing. His chapter culminates in the disassembly and remixing of increasingly sophisticated, interstitial characters, who evolve in relation to other players' characters and inspire further ongoing, erotic role play interactions. He writes, 'They were playing harder now, inventing new characters and trying out old ones on each other. Niacin was no longer

Lisbet only, but sometimes also Giustina, or the virile, bay-rum-scented Ishmael, or the lean old traveller Wattson; exu might be Emory or Xango or the sea-goddess Iemanjá or even, on occasion, exu herself, whatever that was' (Dibbell 141).

Like a masked ball, a ludic, online Space of Appearance is a liminal, threshold realm of role play that, at its most refined, remixes the stereotypical into unexpected, queer, and unique recombinations. Reflecting on recombinant play, Turner writes: 'it is the analysis of culture into factors and their free or "ludic" recombination in any and every possible pattern, however weird, that is of the essence of liminality, of liminality *par excellence*' (28). Experienced ludic mutators stretch, remix, and mutate identity oppositions and categorical distinctions into new poles for further interstitiality.

Disembodied Sensual Pleasure

Devoting hours, days, and weeks to identity exploration on the virtual screen takes a toll on the physical, embodied self. A player loses track of nature's movement of the sun and moon. Mesmerized, the metabolism slows to a trance, and the gamer only leaves the computer at routine intervals to take a 'biobreak' to attend to bodily needs. A divide, a wall consisting of keyboard and screen, separates the player's multiple doll avatars from his or her one static, seated body. Pixelated rain explodes orgasmically on the screen as the player's cursor strokes fetishized digital doll limbs, overlaid with onscreen hot spots that trigger moaning 'oohs' in Marco's Italian 'Godella' *KiSS* doll. Dibbell's *Lamdamoo* players indulge in virtual 'TinySex', adeptly communicating one-handedly through textual chat. The player's imagination inhabits the screen world, while his organic bioware is plugged into the relatively limited channels of sight, sound, and the cool plastic touch of keyboard and mouse.

Despite these physical challenges, ludic mutators are serial transcendentalists who acquire a taste for digital polymorphous sensuality while cycling through multiple characters. Isolated in the flesh, alone in the bedroom or cubicle, a player finds other player's avatars and digital dolls online. Transgender media theorist and one-time game-maker Sandy Stone triangulates the simultaneously binding and freeing effects of the virtual in relation to bodies and selves, suggesting that both new liberties and new constrictions are afforded with different technologies: 'One way to read the history of technology is as a series of complexifications, knots and loosening of the bonds and tensions between bodies and selves' (86). Even if, on the one hand, the computer game player can be said to be suffering

from a state of digitally narrowed, sensual poverty, the divide between virtual and non-virtual affords its own alien, erotic pleasures.

Some rightly point to the alienating effects of past and present technologies. Philosophers from Husserl to Heidegger, Merleau-Ponty to Agamben, have argued for a return to unalienated, existential presence, for immanence in the here and now of the embodied world. According to this phenomenological perspective, the ethereal planes of the Digital Age might be viewed as the dystopian culmination of the heady metaphysical traditions of the West, from the doublings and abstractions from Plato, through Christianity, the Enlightenment and onwards to modernity. Arendt inhabits this anti-transcendent philosophical tradition; yet here, for the sake of free play, I have transposed her Space of Appearance to a digital arena of virtual screen bodies. Despite this unorthodox appropriation of Arendt, I have remained true to her emphasis on fluid language and action, as well as adhering to her endorsement of the liberating effect of a temporary escape from the 'world of necessity'. In this chapter's manifestation of ludic mutation, players were released from social and capital strictures and escaped to a lighter, virtual Space of Appearance.

Beyond the Dollhouse

Although retaining the dressing-up action of paper dolls associated with feminine interests like fashion, digital dolls broke free from the behaviors and roles of the domestic setting of necessity, from the economic demands and the social strictures of the *oikia*. The anonymity of online play conducted over the early internet and the openness of the unfolding game structure were two conditions that facilitated a unique play activity. Similar to the freedom afforded by the pseudonym or the carnival mask, players were liberated by the partitions between both screen and world and between game and not-game. This emptiness, these gaps at the perimeters of the unfolding game, prevent the intrusion of normative linkages between worlds, opening a space for experimentation with 'the who'. Play moves follow the additive protocols of the unfolding game, and each implementation of the mutable doll game arriving at a different ending.

Despite a departure from more traditional feminine aspects of doll play, a visible contingent of *KiSS* doll makers are women, (or identified as such), and were active on a public platform facilitating a rare blossoming of female-fabricated erotic art and pornography. They shared a Space of Appearance with a diverse plurality of varied genders and orientations.

'Free to play' was the only truly common protocol shared among these players, who converged in short-lived, constellations of collaborative play, later returning to their behind-the-screen lives.

Not all computer role-play games are as hospitable to unfolding gender and identity play as early digital game experiments like *KiSS*. More recent game metrics, like those of allegedly escapist Massively Multiplayer Role-Playing Games, discourage the rapid construction and shifting between characters Dibbell described in his ethnography of an early role-playing game. The danger of artificially re-engineering the vital economic structures and social pressures of the *oikia* in a virtual game world is the loss of a public forum for unfolding tales of self. As Castronova writes: 'it would be a shame if something were to happen at this early stage—say a regulation that no one can use an avatar with a gender different from that of their Earth body' (171).

Such binding identificatory regulations are already occasionally enforced for profile photographs on the social network sites like Facebook. On many Web 2-era social networking platforms, even less so than in role-playing games, the self is seldom free of the social and economic 'world of necessity', from the gaze of bosses and coworkers, family, and acquaintances. Social software is also the platform through which many more recent casual games are played like *Farmville* and *Cityville*, games that have little to do with identity formation and are perhaps best understood as simulations of economic resource management, games of *oikia*. A housewife, who already has acquired expertise at household management, is an accomplished digital farmer on Facebook as well.

Are unfolding games destined to surface only as a short-lived, Avant-Garde, generative toy of the Surrealists, and later as a forgotten queer, edgy digital folk-art experiment of the early 1990s internet? Are these Do-It-Yourself, amateurish dolls best understood as a curious, erotic spin on the women's and children's craft of doll-making? Or could these digital dolls be seen as early instances of an evolving play culture of 'the Creative Commons', a ready template for other player-made, remixable toys to come?²⁴ Could unfolding game protocols be incorporated into future computer game genres? Attempts at forecasting game trends and evaluation of artistic merit aside, the *KiSS* practice remains as evocative evidence of free and weightless ludic mutation.

2. Game Modding: Cross-Over Mutation and Unwelcome Gifts

WELL Hey! My name is Kevin Conner, and I play Quake2, Half-life and any good game out there. I am an artist of many mediums; oils, acrylic, watercolour, pen and ink and of course...QUAKE2SKINS!! Here on this page I shall have some links and some skins that I have made as well as an occasional sampling of my traditional art work...I'm sure you'll find my skins very unique... DOWNLOAD THEM! I'd love to see them on others while I am FRAGGING them...eheh thank you and good night! (Introduction to a Modder Website, 1996)

'Modding' is a term that is used among game players and in the game industry referring to player-driven modification or transformation of a computer game. Players of later twenty-first-century sandbox genre games like *Minecraft* have also become proficient at player-instigated changes to the game. The practice of modding began primarily in games of the 'FPS' or First-Person Shooter genre. In the 1990s, the first modders transformed pre-existing commercial games like Id Software's *Doom* and *Quake*. For instance, Kevin Conner, cited above, modified his own so-called 'skins', changing the appearance of the original game's characters, and then delighted in killing off other *Quake* players' characters wearing his skins. While some modifications intervene in such relatively minor ways, others make something entirely new out of an old game. Artists critique and destroy underlying gamic conventions—hacking apart the shooter game becomes chaotic artist's play. Over the last few decades, *ludic mutators* have evolved these game modding approaches, including the artist-hacker, the rule and game form tweaker, the world-builder, the interface modder, and the expert cheater.

The privatized commercial game industry that produces most modifiable games is structured as a managed hierarchy of specialized roles within a game developer company, overseen by game publishers and marketing agencies. Modders, on the other hand, are unpaid player-consumers who volunteer their game building efforts. As a self-taught amateur game designer, artist, or advanced tactical player, the modder first purchases (or otherwise acquires the game), and then modifies a game, thereafter releasing the modified game artifact on online forums and websites. Subsequently, the modder's reconfigurations may influence further commercial game developments and, if so, a feedback loop ensues between the two

sets of gamic cultural producers: character types, gameplay styles, game themes, and level maps (what I call *play material*), circulate between the player's hands and a profit-oriented game industry. The cultural production of modding thus transpires between two distinct spheres of exchange and reciprocity, between commercialized and volunteered game producers, a contrast to the previous chapter's sharing of unfolding games freely created among player-artists entirely outside of the game industry.

In this chapter, I intend to look at where the player's influence and agency begins with modding. Are modders the game world's cultural workers of change, the practitioners of what media theorist Alexander Galloway's imagines as a still-to-come resistant movement of 'counter-gaming' (125)? When do these gamic cultural contributions encounter transmission obstacles into commercial gaming? I will identify key moments when popular modded play material has proved incapable of crossing-over and influencing commercial games. Some mods have been very influential for the game industry, like the player-made mods, from *Counter-Strike* to *Portal*, that the game developer Valve has absorbed into its production cycles. But rather than heroic cultural workers of change, I question if modders are to a certain extent merely reificatory—co-developers of a conservative, hardcore gaming culture that is homophobic, sexist, and militant.

As I enter into these questions of *relations* between different sets of cultural producers, I will compare modding to a relation of parasitism of a host (3). Michel Serres multivalent figure of 'the Parasite' provides a useful theoretical model for understanding how unequal cultural producers like amateur modders and professional game developers co-create digital games. Serres offers three possible definitions of the Parasite. In Serres' first definition, the Parasite is defined as noise in an informatic system. Secondly, the Parasite manifests as a biological infiltration within a larger hosting body, and thirdly, as the anthropomorphic poachers in Aesop's fables of hospitality, for instance the hungry rats gnawing on cheese in a tax collector's well-stocked kitchen (3). Similar to Serres' city rat who opportunistically infests a house and lives off its fine cheeses, modders infiltrate a wealthier 'host' game system. The sophisticated game engine already has artificially intelligent programs, detailed 3-dimensional game world objects and mapped out spaces, which then become available for the amateur game-maker's 'chewing'. The modder takes advantage of this digital game product at his or her fingertips, modifying the game with tools provided by the game developer or developed by other modders.

The act of the modder's appropriation of the pre-existing game is also similar to Michel de Certeau's cultural 'poaching' (xii). De Certeau's everyday

bricolers make do with remixing the privatized spaces and products of consumer society that they find themselves inhabiting and using. Rather than being passive consumers, (or implementers of radically new orders—for in de Certeau this role is reserved for a select few ‘strategists’), ordinary people invent varied subversive tactics for stealing back the given of everyday life (39). De Certeau writes, ‘Everyday life invents itself by *poaching* in countless ways on the property of others’ (xii). Both de Certeau’s poaching and Serres’ parasitism involve thieving from a wealthier host. In Serres’ more elaborated model, this parasitic feeding off the largesse of a host transpires without return to said host, who, in turn, acts as a thieving parasite to a host further up a chain of parasitism, a cascading ‘flow that goes one way, and never the other’ (5). Serres’ parasitism is therefore unidirectional theft from one parasite to the next.

Continuing with biological metaphors, a better description of the productive relation between modders and the game industry may at times be that of a symbiosis, of reciprocal, circular, cultural gift-giving. Theories of mutual reciprocity often adapt some form of anthropologist Marcel Mauss’ theory of the gift economy, a system of obligations incurred by giving and lending that he labels ‘*prestation*’ (3). In the tribal exchanges of a gift or ‘potlatch’ economy, both the social honor of giving and the unspecified expectation of future reciprocity motivates the gifted circulation of goods.¹ With the advent of the Information Age, theories of gifting have gained traction in the Digital Commons movement, Open Source Software Movement, and the Do-It-Yourself Open Licensing movements, as well as in other digital ‘Share Economies’ like the YouTube video database, transferring gifted reciprocity from the circulation of material goods to the interchange of immaterial digital code, content, and knowledge (Raymond).

This digital share culture has also garnered critical responses from post-Marxist quarters such as Paulo Virno, and Tiziana Terranova, who underscore the potentially driven and exploitive relations between free, unpaid ‘outside’ labor and private industry (Virno 191; Terranova 78). In the case of modding, and unlike the digital doll games discussed in the previous chapter, the volunteered contributions of players are deeply involuted with the commerce-oriented productions of the privatized game industry, vendors of playful militaristic conflicts, at least in the First-Person Shooter genre. Whether by accident or by design, these game developers primarily target young men as their consumer market.

Although the bottom line for the game industry is to sell an entertainment product, early First-Person Shooter developers have also been generous with their player and fan bases. For instance, Bungie, (later more

widely known for *Halo*) freely bundled map-making and game editing software with their 1996 release of *Marathon Infinity*. The commercial game developer thereby affords players the power of customization, of leaving their individual mark within their modded version of the sophisticated game software. Taking a more magnanimous view of commercial developers, the modifiable game can be understood as an added gift to the player, a free piece of cheese so to speak, above and beyond the playable game itself that the player has purchased. Should not players be grateful and flattered when the fruit of their voluntary efforts is replicated in subsequent commercial game releases, infecting the body of a corporate host? Or does such corporate feeding off the body of the free labor of players still ultimately constitute an exploitative, parasitic theft on the part of the game developer?

To nail down this chapter's primary dilemma more concisely, who is the host and who is the parasite? And alternately, if we lean toward symbiosis in our characterization of such relations, when does the game developer or publisher deem the player's modification an unacceptable gift—too homoerotic, too feminine, too abstract—a gift best ignored or suppressed because to absorb it into its iterative product evolutions would undo prevalent misogynist and militant cultural conventions of gaming?

A Brief History of First-Person Shooter Modding

The practice of modding first arose in the 1990s in association with the 3-dimensional First Person Shooter (FPS), or simply 'shooter' game. The founders of Texas-based Id Software, programmer John Carmack and designer John Romero, were avid players of demon-infused *Dungeons and Dragons* table-top role-playing games. They envisioned a similar, yet more adrenaline-infused, immersive, adult (or at least teenage), player experience in computer games, a contrast to the cute, childish arcade and Atari console games of the 1980s (Kushner 76). In the genre-defining shooter game of *Doom*, sinister tunneling passageways concealed demonic, alien attackers. Controlling the movements of an American 'space marine' avatar, the player of single-player *Doom* fired at robotic, artificially intelligent enemies, whereas in later multiplayer FPS games, the player's enemies, and also teammates, are controlled by other live human players.

Early 3-dimensional games like *Wolfenstein 3D* and *Doom* established the vividly combative and gory tone of the shooter genre. Also, inspired by the open source software movement's sharing of code, these

game's developers allowed a portion of *Doom* to be modified by players in a format known as 'wads', an early term for game mods.² Other 3-dimensional game companies soon followed suit in opening up portions of their proprietary games to player modding. Code-savvy players programmed free game editing interfaces to facilitate building game levels or 'maps' as they later came to be known. Level-editors such as Quake Radiant and Unreal Editor presented the modder with an overview of an architectural blue-print of the game world, facilitating the design of new buildings and terrains, and allowing for the modder to choose where to position attacking opponents. Modders engrossed themselves in designing their own tunneling mazes and combat scenarios, and inserted their own characters, sounds, images, and environments into games. In chaotic 'death-matches' against other players, modders reconfigured their weapons, for example increasing the velocity of bullet fire, ammunition reloading, and targeting accuracy.

Some mods diverged thematically from the futuristic, violent, horror setting of the original shooter game. Funny inversions substituted chickens for soldiers and dimly-lit, sinister tunnels were wallpapered in pink anime textures, channeling players along treasure trails of cupcake-shaped power-ups. Artists modulated game world algorithms like music, fracturing the smooth surfaces of representation with vertiginous swirls of fractured pixels responding to the player's movements. In an early version of the *RC* mod made in 1999 by Spanish artist Retroyou, cars and other game world objects were released from the law of gravity, floating into virtual infinity.

At the turn of the millennium, rather than reconfiguring characters, or architecture and virtual game environments, the primary portion of the shooter game being modified shifted from game world components to gameplay mechanics, to the rules and conventions that govern how the game is played. Drawing on their expertise as players, this second generation of modders were rule tweekers and player-cum-designers. They conducted a careful re-engineering and balancing of players' roles on opposing teams of virtual commandos. For instance, within one team, a sniper role shields from above while a foot soldier launches a grenade from below in late 1990s mods of *Half-life* like *Team Fortress* and *Counter-Strike*. Such specializations replaced the undifferentiated killer roles in earlier multi-player shooter games. The *Defence of the Ancients (DotA)* mod, a modification of Southern California developer Blizzard's *Warcraft III* popular in Asia, is also primarily a mod of gameplay conventions that fuses role playing game mechanics with the real-time strategy genre.³ What was transformed and tweaked in these later mods, sometimes over many player-driven iterations, were the rules.



Fig. 2.1: A hacked and intentionally glitched-looking mod of a car racing game; *RC mod* (1999–2000) by Retroyou (Joan Leandre); Game Screenshot.

Sandbox Worldbuilding: Interface Mods, and Expert Cheats

First Person Shooters and Real-Time Strategy games are not the only game genres that are modded. Before we move on with our analysis of culture-maker relations between modders and the game industry, let us review a few additional common modding approaches, beginning with *worldbuilding*. *The Sims* was one of the first mainstream computer games to emphasize the dollhouse-like pleasures of assembling a miniature game space, a digital household. This casual game was exceptional for its time in crossing the gender divide, appealing to girls and others who had been alienated by the more violent aspects of shooters.⁴ Worldbuilding as a play activity has also become prevalent in a genre of digital play spaces that, in the last decade, have been confusingly designated both ‘open world’ and ‘sandbox’ games. Although often used interchangeably, there is a difference between the two labels. Open world games encourage open ended exploration and non-structured interactions, rather than strictly adhering to game rules or pursuing mission objectives—although open world games like the *Grand Theft Auto* series also include optional, linear missions.

In contrast, sandbox games emphasize worldbuilding. The genre's metaphor is based on the activity of building castles in a children's playground sandbox. For instance, the sandbox game and online 'social universe' launched in 2003, *Second Life*, has built-in game modification tools for building 3-dimensional digital environments.⁵ In order to leave behind a lasting space in *Second Life* for other players to teleport into, such as a tropical island or a replica of university campus, players must purchase digital real estate from the game's developer Linden Labs; however, any player can open a free account and customize their avatar's gender, ethnicity, (including vampires and robots) and body shape.

In older versions of *Second Life*, players could also personalize their characters by interchanging cars and other 3-dimensional objects for body parts. From the game developer's perspective, oddities like a character wearing a gigantic car for a hat can only be tolerated in multiplayer games where other player-customers will not protest too loudly about immersion violations of the game fantasy world. Commercial games often conform to more unified themes such as Steam Punk, Medieval, Mythical China, or the Wild West.⁶ The modder's customizations and worldbuilding potentially insert unplanned-for noise into the game's mimetic universe. Although most *Second Life* users seem to enjoy the open possibilities of the platform, others complain that *Second Life* is not immersive and game-like enough. How can sandbox game developers constrain the potential chaos that ensues when players can do anything or add anything to the game's world?

The independent developer of what has become the sandbox successor to *Second Life* happened on an efficient, aesthetic solution for unifying players' diverse contributions to the sandbox universe. Each and every object 'crafted' in *Minecraft*, whether car or hoe, space station or medieval castle, appears in a low-resolution, digital Lego-like blocks. Although released in 2011, eight years later than *Second Life*, *Minecraft* is less, not more photorealistic than *Second Life* due to this modular building-block aesthetic used for its open-ended worldbuilding. The original version of *Minecraft* included a 'Create' mode that allowed the player to focus solely on worldbuilding. Other, more constrained modes of play that have since been added, modes that still encourage worldbuilding and player driven game design, include the Survival mode, the Adventure mode, and the Player vs Player mode.

Players have deployed *Minecraft* for curious worldbuilding applications that were surely not predicted by Swedish developer Markus 'Notch' Persson. One peculiar trend in *Minecraft* is to build replicas of older popular 3-dimensional game levels with *Minecraft*'s relatively simple building blocks,

converting what were once impressively photorealistic commercial game spaces at the time of their release, with smooth edges, shadows, reflections and sophisticated graphics algorithms, into toy-like, brick constructions. Take, for instance, a 2012 *Minecraft* map made by Tsarcorp, an advanced *Minecraft* world-builder, a 'Level 52: Grandmaster Terraformer'. Tsarcorp crafted a *Minecraft* remake of the ghost city of Pripyat, from the First-Person Shooter game *Call of Duty 4: Modern Warfare*. According to the original developer of the *Modern Warfare* game series, Activision, 'Pripyat, or Prypiat, is an abandoned town in the zone of alienation in northern Ukraine, near the border with Belarus'. The real Soviet-era city was built to house Chernobyl Nuclear Power Plant workers, and was abandoned in 1986 after the nuclear disaster that spread contaminated rain and ash as far as Western Europe.

In the *Minecraft* version of Pripyat, made after the *Modern Warfare* game level, pixelated rain falls on abandoned Soviet-era block apartments under a pink, radioactive sky. Although remade with *Minecraft*'s toy-like blocky aesthetic, the *Minecraft* version of the contaminated nuclear site is still haunting. Tsarcorp's *Minecraft* version can be explored but is otherwise unplayable, lacking the weapons and NPCs (automated non-player characters) of the original *Modern Warfare* combat game. Perhaps Tsarcorp's intention is to commemorate the tragedy of the original real-life nuclear disaster by removing the more ludic interactions from the ghost city. But above all, Pripyat, and the numerous other low resolution *Minecraft* remakes of other more photorealistic, highly produced Triple A games, serve as digital monuments to the months and possibly years that players have spent gaming in these industrial entertainment spaces. These worldbuilding crafters commemorate and share the formative memories of their youth with other nostalgic players.

Victoria Bennet and Adam Clarke leveraged *Minecraft*'s worldbuilding capacity to elicit memory and narrative for a more personal memorial. The *Minecraft* map titled *My Mother's House* is a modular replica of Bennet's deceased mother's home. The game was exhibited as an artwork at the Tate Modern in 2015. A reviewer of the work writes '*My Mother's House* is the most moving poem I've ever played [...] As I explored it, the poem brought back my recent memories of helping my own mother clear out my late grandfather's house, remembering and sometimes learning for the first time about different aspects of his life' (Dredge). In the game, while reading the lines of a poem written on the walls, the player moves from inside the empty house to a dreamy, rain cloud-filled ship outside.

A map like *My Mother's House* treats the mature, emotional subject matter of mourning and grieving. Other *Minecraft* maps deal with historical topics,

have educational aspirations, or enter into politics, such as an anti-SOPA map made in protest of the Stop Online Piracy Bill. Still a vast majority of Minecraft maps and other player contributions focus on craft and other technical issues as their primary subject matter.⁷ Not only the tutorials posted on YouTube, but also the maps shared by young *Minecraft* players tend to showcase technical craft over content, such as a widely circulated map of a walkable replica of a computer circuit board. In contrast to the more flirtatious, anonymous, vampire beach club vibe of *Second Life*'s digital real estate, much of this player-created *Minecraft* universe has the atmosphere of a game hacker club for preteen boys, evident from the young game builders who appear on camera or as a voice track in YouTube videos explaining their craft.

These sandbox games and modifiable First-Person Shooters are by definition very open to player-driven changes to the game. In comparison, games of the Massively Multiplayer Role-Playing Game genre (MMORPG) are largely closed off to player modification.⁸ In addition to the potential issue of thematic immersion violations, more extensive player modding like worldbuilding could interfere with play mechanics, unbalancing the carefully maintained fairness of quests and battles in these large-scale, persistent, role playing productions. Besides limited avatar customization, the only modding permitted in the universe of a game like *World of Warcraft* is the customization of the interactive interface of a two-dimensional button layout floating over the viewport onto the game world, what I call an interface mod. Although such personalized interface mods can become a quite intricate layout of buttons, affording a player a unique configuration of spells, digital artifact inventories, and gamic actions, they are viewable only to the solitary player.⁹

In addition to modding, worldbuilding, avatar customization, and interface mods, cheats are another noteworthy form of game world modification. Cheats can be creative or mundane, calculated or accidentally discovered. Mia Consalvo has identified what she refers to as the 'game capital' that cheating players acquired from game magazines that were published with and without game industry sanction for adventure games. These publications revealed hidden information (so-called Easter eggs), tricks, and cheat codes for unlocking games. Addressing the broad range of actions that might be considered a cheat by the game industry or by players, Consalvo writes that cheating might just mean 'going beyond the instruction manual to friends, strategy guides, and gaming magazines for hints or walkthroughs explaining how best to advance through a certain area' (69). More ambitious cheaters purchased cheat codes to jump up through the levels of games, in so doing accessing the same shortcuts that the developers used while making the game. Within the shooter genre, game world hackers downloaded cheat codes from player forums, such as codes to

eliminate gravity, and codes that granted characters super-powers like flying over barriers. Cheat codes converted walls to transparent wireframes and outlined enemies in red halos, revealing the player's opponents from a great distance. Meanwhile, the opponent remained blind to the cheater's position in the game map, until a few instants before his or her untimely demise.

Cheaters also invented and shared tricks to advance beyond and out-manuever other players that, at times, explicitly leveraged modding techniques. For instance, a cheater opportunistically applies camouflaging wall and floor textures to their character's body, a so-called skin. From his camouflaged hiding spot, the commando jumps out of a wall into a full scale attack, taking the opponent by surprise. Another mod trick of multiplayer shooter games was to paste a temporary two-dimensional image on a wall (known as a tag), of what appears from far away to be another player's character. The unsuspecting opponent wastes precious ammunition on the decoy, giving away his own position with loud gunfire.

Depending on how other players and game developers validate such trickery and invested work-around the rules, rather than an unlawful, unskilled shortcut, cheater mods can be viewed as an advanced tactical approach to the game orchestrated by expert players. De Certeau writes of 'connoisseurs and aesthete' tacticians, like a skillful taxi driver in Rome who masters a 'labyrinth of power', taking 'pleasure in getting around the rules of a constraining space' (18). Similar to both taxi drivers and tax lawyers, game cheaters are more attentive to rules and world limits than non-cheaters, combing the parameters of the game world for advantageous loopholes, searching for instance for a wall collision glitch that mistakenly opens onto a locked area. Although the expert cheater has afforded herself an unfair advantage over the other players of the game, (and has pulled off a small reversal of power against the game designer's attempt to impose fair rules for all), the cheater's tactical interventions in the game world usually do not alter the overarching aims of combative engagement, except perhaps by inspiring the design of future games where all players are endowed with superpowers like flying or seeing through walls.

Artistic Noise in the System

Unlike the cheater's transgressive actions that nevertheless still conform to the original goal of the game, artists have taken apart game worlds to the extent that the original game is no longer recognizable, nor even playable as a game. In an exhibit titled 'Synworld: Hyperspace' in 1999 at Public Netbase in Vienna's Museumsquartier, Austrian artists divested the *Unreal* game

engine of its reputed photorealistic effects, hurtling the player's character down a virtual well surrounded by semi-transparent walls textured in green on black text. That same year, I curated an online exhibit of artist made mods titled 'Cracking the Maze: Game Plugins and Patches as Hacker Art' on the online media art journal *Switch's* website.¹⁰ For this exhibit, I convinced game developer Bungie to donate free copies of the space shooter *Marathon Infinity* for the participating artists to modify. Since the late 1990s, other artist-made game modifications and art games have been occasionally exhibited in international art venues, galleries, museums, and festivals. These artist mods were also referenced and available to download from the Australian 'Select Parks' online archive.

The game mods of Jodi, an artist duo consisting of Dutch Joan Heemskerk and Belgian Dirk Paesmans, are in many ways representative of the artistic hacking approach to the game mod. In the late 1990s, Jodi assaulted shooter game engines with the same destructive playfulness that marked their hack-erish approach to HTML 'net.art' a few years earlier. In *Untitled Game*, a series of nine remakes of the *Quake* engine made from 1996 to 2001, Jodi eliminated representational properties from the game world, flattening the textured surfaces of the original game's space station to shadowless, black-and-white walls. Standard gamer keyboard controls for jumping and shooting trigger delayed rains of pixelated bullets and spinning vertigo. A short description of Jodi's *Untitled Game* series on the Select Parks online archive of game art mods states: '*Quake* 1 mods, "untitled-game" mutates the semiotics of navigational perception, abstracting original game ontology, controls for mobility, enemy identification, narrative cognition; reward systems, landscape, and gravity are reduced to symbolic fragments' (*Select Parks*).

The destructive relation that artists like the Jodi collective have developed toward the game seems to fit best within Serres' first instance of the parasite as noise in a system. This parasitic noise arises at any of three points of a triangular communications model of 'sending, reception, transmission' (194). Instead of disrupting the transmission of communication signals, the artist modder inserts noise into the game system, interrupting the playing of the game according to its proper rules and goals.

Noisy parasites are not always welcome, distrusted as invaders from an exterior cultural realm, artists not gamers, or again, failing to properly conform, computer gamers not 'real' artists in technophobic regions of the art world. Despite the comprehensive exhibition histories and visibility on the internet of game mods like Jodi's, such artistic hacks of commercial games have been criticized as ineffectual, both in terms of gameplay and artistic relevance. For instance, in the final pages of *Gaming: Essays on*



Fig. 2.2: Untitled Game (1996–2001) by Jodi; Game Screenshot.

Algorithmic Culture, Galloway concludes that Jodi's *Untitled Game* mod ignores 'all possibility of game play'. He also provokes that their art game mods retroactively echo an outmoded, mid-twentieth century art movement by propelling the game 'into fits of abstract modernism' (107). According to Galloway, an as yet unrealized movement of 'counter-gaming' would require a more radical approach to artistic modification with more meaningful input into the evolution of gameplay. He writes, 'Visual imagery is not what makes video games special [...] counter-gaming is an unrealized project' (125–126).

Let us pause to pose a question that we will return to again in other chapters: what exactly is gameplay? Galloway's criticism of artistic modding's inability to develop a 'new grammar' of resistant play assumes that play consists of constructive, programmed moves leading toward a goal or a mission. Measured by such criteria, a game without such ordered play mechanics like Jodi's noisy abstract interventions is merely a broken game. But can play consist of something more chaotic? For instance, in a blog entry entitled 'The Anarchy of Paidia', game designer Chris Bateman reflects on rules and their counterpart of disorder, drawing from French sociologist Roger Callois' expansive definition of play. According to Callois in his pre-computer game age ludological tract, *Man, Play, Games*, play vacillates between order and chaos (paidia), 'from somersaults to scribbling, from squabble to uproar, perfectly clear illustrations are not lacking of the comparable symptoms of movements, colours, noises' (28). Such colorful, kaleidoscopic descriptions bring to mind the gyrations of Jodi's *Untitled Game* mods. Paidiaic players, children, animals—and also artists—play in an unstructured, undirected vertiginous mode of paidia with toys or other found objects such as appropriated furniture, tree branches, and cardboard boxes. Paidia can coalesce into an ordered goal-oriented game, only to disintegrate again into chaos. For Callois, paidia is creative variability, its direction, aims, goals and material indeterminate at the outset of play. Even if an objective is formed, paidiaic play is unintegrated into a larger systemic whole constrained by competitive and goal-bound rules. Artistic game modders, while hacking apart and modulating the graphical and aesthetic properties of games, have been playing all along.

Yet, to entirely ascribe such noisy game hacks to the childlike, destructive joy of paidia neglects the critical edge of these art practices. In addition to being understood as disorderly play, the parasitic noise that artists are generating in the play system disrupts the expected alignment of features and components customarily found in the First-Person Shooter game. Computer games have coalesced into genres where violent play is narrowly replicated in release after release in the game industry, especially in the

shooter genre, a favored genre for modding. Players engage in agonistic violent combat against artificial non-player characters in single-player games and on teams against each other in multiplayer matches. Players learn to handle virtual toy weapons, and in many shooter games since the United States' initiation of the War on Terror, these games are set in live conflicted zones in the Middle East and elsewhere. For instance, in the downloadable shooter game of *America's Army*, a recruitment game developed in 2002 by the United States Army a year after the September 11 terrorist attacks, the player-soldier, usually a male soldier, undergoes training in an army boot camp under the supervision of a robotic drill sergeant, before graduating to fight on a counter-terrorist team with and against other players. These militant conflicts galvanize a binary logic of fraternity and solidarity against a common enemy, a macho militarized play culture reflected in the young men's multi-lingual 'trash talk' audible on the 'radio' voice channels of First-Person Shooter players located across Asia, Europe, and North America.

Abstract artistic mods on the other hand, like Alone's *Quake 3* mod, Retroyou's *RC* mod, and Jodi's *Untitled Game* series, remove all traces of any such representation from their blanked out walls and abstracted empty corridors, eradicating the means for the player to project themselves mimetically into the world. By erasing the slate, such mods beg the question of what else might be projected into virtual game worlds by the omission of the expected content. *Untitled Game* simultaneously exaggerates and exposes the violent algorithms of the genre, multiplying bullet sprays, amplifying the grunts of monsters, modulating the game system at key operational nodes. Actions and auditory effects disintegrate into absurdly aggressive noise when bereft of supporting representational, visual content.

Although artists may be atypical players and modders of shooter games, the noisy artistic hack is still a critique launched through the system. Jodi's work explores and mutates the software codes controlling the physics of combat and the algorithms of bullet dispersal. This interior critique takes pleasure in consuming the industrial game product it destroys. Thus, unlike Serres emphasis on the parasite as 'para', in the sense of *beside* when he writes 'To parasite means to eat next to', artistic modders occupy an interior critical position, chewing on the walls of the game engine from the inside (6). To put it another way, as opposed to launching a critique of militarism, sexism, or nationalism in games through exterior means such as censorship, or via the critical media reception theory that resurfaces in the news media whenever disturbed teenage boy-gamers erupt into real-life

violence in schools and other youth settings, the artist modder engages directly with the game engine, noisily destroying the game from within.¹¹

Toward the close of *the Parasite*, Serres speculates that the parasite's noise contributes to the first phase of an evolutionary process of mutation and selection, the mutation of 'a message written on a base' (184). He writes:

Part of this message is changed by mutation, by absence, substitution, or difference of elements. It is not entirely a metaphoric expression when we claim that it has to do with intervention of a noise in the message. Noise in the sense of disorder, and thus chance, but also noise in the sense of interception [...] The new order appears by the parasite troubling the message (184).

Similarly, although the artist's hack of the shooter genre retains elements of the original game, noisy artistic interventions indisputably 'trouble the message', rendering the original game almost unplayable.

If we follow Serres in applying biological evolutionary concepts to cultural change, this insertion of abstract artistic noise into the game can be viewed as a step toward, intentionally or incidentally on the part of artists, to instigating a change or mutation, clearing the way for a new order of play culture to come (whatever that order may be). Whether ultimately the parasite's actions within the game system prove to be a successful mode of cultural intervention and impactful ludic mutation, is a question that I will pursue in the following subsection with a different set of game mod examples.

Cross-Over Mutation of Play Material

Continuing with evolutionary analogies for transforming games and game culture, I will now consider the 'selection' phase invoked as somewhat of an afterthought of parasitic intervention by Serres. This is really a question of locating where a cultural change begins and when it capable of spreading or crossing-over between players and the game industry. In this section, I will unravel an evolutionary thread of ludic mutations across serial game releases.

In 1999, I was invited by Erkki Huhtamo to participate in the 'Alien Intelligence' exhibit at the then newly constructed Kiasma Museum in Helsinki, Finland. As an internet curator/cultural worker (officially I was considered an artist), I made a small website titled *Mutation.fem* tracing

gender transformations of game characters over several commercial game iterations and player interventions (*Mutation.fem*). In early First-Person Shooter games, all of the playable characters upon purchase of the game were male. Unhappy with this one-sided gender limitation, players primarily identifying as men hacked female fighters into these games, pasting flat, feminine 'skin' textures—bikinis, breasts, and fetish lingerie, onto the hulking male three-dimensional figures arriving pre-packaged within various titles like *Doom* and *Marathon*. As mentioned earlier, skins are a common type of avatar or game character modification that changes the surface textures mapped onto a 3-dimensional character body. These cross-dressed fighters engaged in battle on the newly online servers of multi-player *Quake*. At the time, in my write-up for the *Mutation.fem* exhibit, it seemed appropriate to refer to these game characters in drag, whose underlying 3-dimensional bodies were after all still manly, as 'frag queens'. Fragging was *Quake* player slang for killing off game characters.

In an apparent response to the popularity of these player-made female skins, Texan game developer Id Software's inserted a female protagonist character option into their 1997 sequel game, *Quake 2*. This character was among the first female fighters to appear already pre-packaged within an industrial shooter game. Although *Quake 2*'s new female fighters sported visible musculature, when viewed alongside *Quake 1*'s brawny Frag Queens, *Quake 2*'s character's slender curves conformed to more conventional womanly proportions. Gendered play material traveled from the player sphere to the game developer, from modded *Quake 1* Frag Queen skins to company-made *Quake 2* female characters; but, in the crossing over the frag queens underwent a normalization into a more stereotypical conception of femininity. In this sense, *Quake 1*'s cross-dressed frag queens remain an interrupted evolutionary offshoot of queer game characters, who have yet to resurface again en masse on the macho game-scape of shooter games, 'a gift' from the players that was unacceptable in its original shape to the game industry.

Let us now proceed to the next link of the chain in our tale of *Mutation.fem*. Interpreting the novel gender equality of characters in the official game of *Quake 2* as an invitation, an invitation that might not have come to pass were it not for the rough customizations of *Quake 1*'s frag queens, biological women start to play as the female characters in the second version of *Quake*, waging battle in groups of six to fifteen players. Sharing their profiles and modifications on the Quake Women's Forum website, bored Australian housewives and mothers, and Canadian female technical professionals gaming on the clock, banded together in *Quake 2* 'clans' like 'Psycho Men

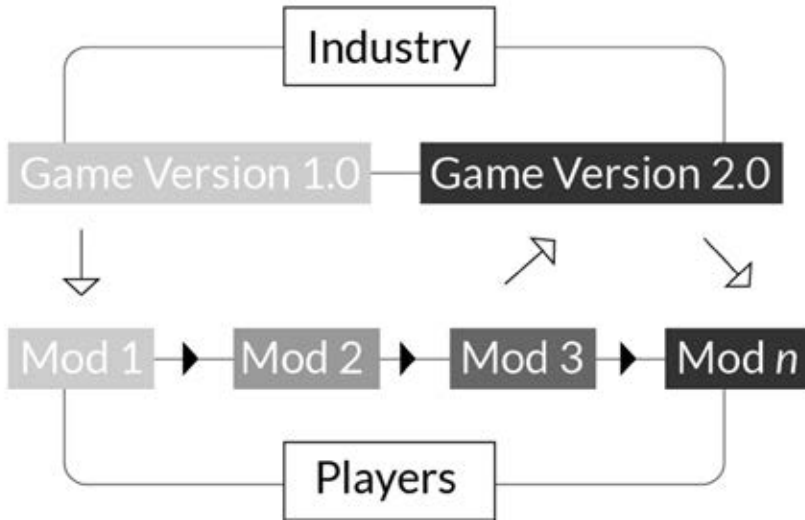


Diagram 2.1. Iterative Movement of Play Material between Players and Industry.

Slayers' (PMS) and 'Vicious Vixens'. On custom designed, player-made skins, PMS clan players branded tattoos of their clan logo onto the small window of flesh visible on the character's back.¹² So it came to pass that the noise generated by the first generation of campy female frag queens in *Quake 1* cleared the way for a new configuration of players and characters in the next commercial iteration of the game, that although adhering more closely to heterosexual stereotypes of gender, was still a substantial deviation from the initial insular, boys-only terrain of the shooter game genre.

Play Material

I refer to the digital units of modding, the changeable components of a game at a variety of scales such as characters, levels or maps, sounds, and rules, as *play material*. Ian Bogost similarly referred to the techno-cultural components within games and other digital media as 'unit operations'. Bogost's units are 'characteristically succinct, discrete, referential and dynamic' (4). As Nicholas Negroponte points out, if we break larger cultural units like games into down into even smaller pieces, their components can be reduced to digits, to ones and zeroes, and digital material can therefore be rapidly sent back and forth over the internet (14). When I first encountered modding while studying in Northern California in the late 1990s, this player-driven

online gaming phenomenon inspired high hopes for an open evolution of gaming culture facilitated by the rapid global transmission of play material over the internet. But unit operations, play material, and the speed of bits are theoretical, media abstractions. A less promising picture emerges if we ground these digital media concepts within modding as it has evolved in practice over the World Wide Web.

In Silicon Valley California, the 1990s internet generated not only enthusiasm for new business models like dot.coms, but also hopes of a democratic and participatory internet. Ideally, modifiable games should also have been accessible to anyone in the world with Internet connectivity and computing power. But despite hopeful evolutionary strands like *Mutation.fem*, participation in game modding has not been as inclusive as could be hoped for in terms of gender diversity. Nor has modding been conducted extensively outside of wealthier North American and European nations located in the Global North, although a few enterprising game pirates have localized features of games like *Grand Theft Auto* (Schleiner, *Global Players and Makers* 19). A number of infrastructural obstacles prohibit the modification of games outside of wealthier nations. Players in the Global South, in Latin America, Africa and Southeast Asia—and, to a certain extent, Africa, do participate in digital gaming and are increasingly being catered to and targeted by a more globally attuned game industry. Even if players cannot afford a personal computer gaming set up at home, they can still play online games in game cafes, and also play casual games on social platforms and mobile phones (Schleiner 32). But those players who only have access to fast internet connections in game cafes cannot download the custom software required to modify games onto the game cafe's public computers. Whether purchased out of the box, from a street vender of pirated games, or downloaded from an online vender like Steam, the original game characters and scenarios in commercial games tend to reflect the views of a relatively privileged set of white, male developers situated in the Global North. If a more equitable global internet and digital game infrastructure were in place, international players could customize, localize, and mod these commercial entertainment products.

Although Northern developers should be answerable for the content of their games, the powerful infectiousness of cultural and gender stereotypes across media should also be taken into account. Games often import persistent cultural patterns from other media like the news media, television, and fantasy novels. As Anita Sarkeesian eloquently demonstrated in her controversial YouTube video essay series, computer games also disseminate

tired, sexist gender stereotypes that are repackaged within games that are otherwise innovative for their time.¹³ In *Tropes vs. Women in Videogames*, she demonstrates a repeated pattern in popular North American and Japanese games over the last decades. From the 1981 hit *Donkey Kong* to the lauded 2001 adventure game *Ico*, male characters are active and capable, while female characters, if present, are lost princesses in need of guidance and rescue.

In *Declining the Stereotype*, Mireille Rosello underscores the iterative transmission of ethnic stereotypes across media: 'Because of their strong iterative force, they travel from mouth to mouth, text to text, from discipline to discipline without losing much of their original shape and strength' (35). Similarly, while replicating across player, artist, and game industry spheres, play material transmits a persistent gendered or ethnic stereotype, along with other cultural data. Referencing the etymological nineteenth-century origin of stereotypes, Rosello writes 'Like a block of cast iron, they form a whole that cannot be dissolved and whose main purpose is to be repeated endlessly' (23).¹⁴

But as stereotypes travel from older to newer media there are also opportunities for breaking up clichéd and harmful patterns. Structurally speaking, digital play material lends itself to a greater degree of transformation than cast iron print blocks. Game components can be remixed, re-skinned, broken down and passed on to other cultural transformers. Serres writes of the Parasite, 'Everything passes through his hands, because, more or less, everything is transformed in his hands. The exchanger is also a transformer' (43). Play material attracts playful abuse by ludic mutators, 'ab-use' understood, following Serres' usage, as appropriations of preceding use (80). When remixed in the hands of a ludic mutator, the game's previous cultural patterns can be changed.

At times, digital play material is only repeated as it moves through player modding and game industry spheres via the milieu of the internet. Gender and ethnic stereotypes are perpetuated. Games become formulaic, especially after numerous sequels and knock-offs that attempt to squeeze the most out of a publisher's franchise. The evolution of more diverse configurations of play material is further impeded by global and regional infrastructural, economic, and cultural barriers. In regard to gender, shooter games, the genre most closely associated with modding, is historically a hardcore genre that boys and men claim as their own militant fantasy terrain. As evident from the short life span of *Quake's* frag queens, a queer variation of a stereotype is for the most part ignored when it threatens the heterosexist power relations propagated in the game industry. Even so, this

initial introduction of gender noise cleared the way for a short-lived influx of flesh and blood female fighters in the First-Person Shooter genre.

Thieving Parasites

The female modders of *Quake 2* made their own character skins, maintained their own Women's Quake Forum, and formed their own alliances and networks. The cultural production of this online community is comparable, in some ways, to the female television fans of a prior decade described by Henry Jenkins as 'textual poachers'. Instead of producing original cultural texts, Jenkin's poachers borrowed material from popular culture and adapted it, writing deviations of television plots such as tales of homoerotic encounters between characters from the *Star Trek* television series. Jenkins portrays an avid television fan community of women who self-produced small magazines or 'zines' of 'photocopied anthologies of short stories, poems, and artwork centering on one or more media universes' (157). Inspired by de Certeau's poacher of everyday life, Jenkins differentiates his textual poacher from a diminutive conception of the television fan as a 'feminized' brainwashed, passive recipient of mainstream media. These female fans, like female Quake modders, actively remixed their own customized versions of popular culture.

Instead of artistic noise-making, the parasitic relation that the modder as poacher adopts toward the commercial game is one of borrowing or appropriation. Like the parasite's theft from the rich tax collector's kitchen in Serres' rendition of the rat fable, poaching is a relation of theft from the wealthy by the more impoverished, an act of appropriation of a narrative universe on the part of fans whose means of production, (photocopied, home-made magazines), was limited in scope and production value compared to the reach of a broadcast television series. Although not as far apart by the same degree of medium and reach as a television studio and a handmade fanzine, commercial game production and player-conducted modding also belong to distinct spheres. A Triple A, 3-dimensional North American, European, or Asian commercial game is the synchronized product of the almost 24/7 labor of a team of lead and subordinate game designers, a set of producers and art directors, experienced narrators of game lore, a branch of programmers and artificial intelligence specialists, and armies of 3-dimensional modelers and animators, pressured by deadlines from external game publishers and public relations publicists in the West or internal Japanese managers. Upon public release of a well

marketed, user tested, and anticipated game, players, consumers, and potential modifiers, enter the game world in awe, reverently feasting on layers of special effects, shadows, drifting fog and enticing vistas, fluidly responsive character movements, impressive artificial intelligence, and well-balanced, captivating level design. A Hollywoodish, industrial entertainment 'wow effect' is produced in the cubicles of the commercial game studio, or at least this is the developer's hope. This powerful effect is a manifestation of the game's organized means of production.

A lone player setting out to modify such a game might initially be intimidated by the host company's impressive accomplishments, reclusively working alone in the bedroom late at night, testing out his level on a small group of compatriot game geeks. While exploring the game engine, the modder inhabits the host game system like an interloper, breaking and prodding the game at key junctures, erasing files to see what effect their lack produces, changing parameters to discover and isolate their operations. But in exceptional cases, the modder's accomplishments may end up eclipsing the original commercial game. In 1999, Vietnamese-Canadian modder Min Le 'Gooseman' developed a mod of *Half-life* while still a college student, in collaboration with a small group of local and long distance modder cohorts. Their late night, volunteered efforts ultimately culminated in *Counter-Strike*, a mod with a combat play style approximating contemporary commando teamwork formations in the Middle East and in other live, conflicted zones. Upon release, *Counter-Strike* captured the interest of a worldwide majority of (mostly male) team shooter players and, exhibiting extraordinary longevity for a computer game, continues to be played over a decade after its appearance.

Counter-Strike is also an unusual instance of the hosting game company, Valve, sharing some financial proceeds from the mod with the modder. Publisher/developer Valve continues to absorb amateur makers of popular mods into their corporation, hiring on the makers of popular mods on development teams. In such cases, the host and the thieving parasite reverse roles, when Valve poaches off the efforts of modders for game ideas, even as the corporation to a certain extent rewards modders by offering them decent, paying game developer jobs.

More commonly, the game developer keeps the players within the legal bounds of the game software's user agreement. Such agreements stipulate that no commercial gain is to be made by players for their creative modifications, an exploitive relation that some critics of information capitalism would attribute to the immaterial 'free labor' flowing outside of a company, exterior voluntary labor that ultimately serves in the company's interests.

For example, Terranova writes, 'Such means of production need to be cultivated by encouraging the worker to participate in a culture of exchange, whose flows are mainly kept within the company but also need to evolve an "outside", a contact with the fast-moving world of knowledge in general' (79). Returning to Serres' cascading diagram of parasitism from the fable of the cheese eating rats, the modders would occupy an exploited position similar to the farmers from whom the wealthy tax collector parasites his wealth. The tax collector, like the game developer, feeds off the labor of others. But in the case of modding, this parasitic theft is not uni-directional. The host, the game developer, parasites off his own parasites, stealing what modders remade of the commercial game during long, sleepless, unpaid for after-school and after-work nights.

In *The Nights of Labour*, Jacques Ranciere resists the liberal, academic propensity to portray the self-educated and newly literate as a weak underclass. His historical investigation—unlike his later more theoretical and philosophical writing, recounts the exemplary lives of self-motivated nineteenth-century laborers, boot-strappers who taught themselves to read and write long past the daylight hours of their day jobs at factories and other working class illiterate employments. These self-educated workers wrote poetry and published their own journals. Amateur modders also spend their off-time from employment and schoolwork on self-motivated training. Unschooled as programmers, or as game designers, or as artists, they comb through internet forums, searching for Consalvo's game capital, the heuristic tricks and secrets to unraveling the arcane techniques of game remixing.¹⁵

More recently, the expertise of a later generation of modders arises from the experience of countless hours of play. Over repeated matches and battles ad infinitum, players discover the varied possibilities and affordances of their favorite games' structures and rules. A mod such as *DotA* (Defense of the Ancients), does not substantially change the original *Warcraft III* game's visuals, setting, themes, or invest intensive production time in the building or the programming of artificially intelligent characters and new scenarios. What later twenty-first-century mods do instead, quite economically, is to tweak the game form. *DoTA* efficiently reuses much of the play material already available in the original game of *Warcraft III*. In the resulting *DoTA* mod, compared to the original *Warcraft III* game, rounds are of a shorter duration and players center their attention on advancing a hero character instead of attending solely to resource management. Many player-made *Minecraft* maps are also minor reconfigurations of the game's preexisting gameplay components in adventure or survival mode. With a few notable

exceptions, such as the innovative and experimental 3-dimensional puzzle game *Portal*, we find a somewhat unsatisfactory answer to Galloway's wish for future modders to contribute more to gameplay in these mechanical refinements of the original game's rules and conventions.

A Common Sphere of Gifted Games

Upon successful reception of a mod among other players and the subsequent incorporation of innovative play material from the mod into a commercial release, the modder might be flattered by the mimicry of the game industry, even without financial recompense. Many analyses, such as Eric Raymond's varied applications of gift economies to open source software coding, attribute honor as the motivation behind the sharing of free software and other digital objects like game modifications. Making a name for oneself may seem sufficient reward for voluntarily creating and sharing digital material like game mods. In a subsection of a larger essay entitled 'The Hacker Milieu as Gift Culture' Raymond writes, 'it is quite clear that the society of open-source hackers is in fact a gift culture. Within it, there is no serious shortage of the 'survival necessities'—disk space, network bandwidth, computing power. Software is freely shared. This abundance creates a situation in which the only available measure of competitive success is reputation among one's peers' ('Homesteading the Noosphere').

In the digital information sphere, various models for sharing content are legally and illegally available to internet and digital media users. The efforts of advocates like Raymond and other platform builders in the service of movements like the Open Source and the Free Software Movements can be traced to the early history of computing and the internet. Open source software code is available on SourceForge, and the Creative Commons data archive makes available freely usable images and sounds. At the beginning of this chapter, I related how Id Software was originally inspired by open source software development to open up portions of their games to modding, initiating a trend that other game developers soon followed. But the ensuing relations between modders and game industry are complicated by various forms of parasitism and exploitation, and the turn toward an increasingly militant, hardcore gaming culture. Would an open, free, and common game world development platform be preferable to modding? *Minecraft* seemed one possible answer to this question, at least during the initial years when the game was free to worldbuilders. But in 2014, *Minecraft*, and the cultural capital that *Minecraft* players had contributed

to the game universe, was sold to Microsoft, who now charges its users for the game.

In more theoretical terms, let us evaluate some proposals for a common sphere of gifted play material that might hypothetically serve for game development. One evocative model that has been proposed for open cultural and scientific development, somewhat similar to my adaptation of Arendtian action in the previous chapter on unfolding games, is Paulo Virno's coalition between Hannah Arendt's 'Action' and 'Intellect' (190).¹⁶ To counteract Arendt's alleged solitary Intellect of the contemplative philosopher's tradition, Virno suggests that General Intellect, derived from Marx's notion of science and communal knowledge embodied in machines, should be elaborated expansively to 'a faculty that makes possible all composition' through communal 'virtuoso scores' (190). Virno's General Intellect, when not 'inhibited and distorted' by Work, takes as its starting point common participation in an action arena inspired by Arendt's Space of Appearance.

Although Virno does not offer his own examples, taken more literally, these scores could be any kind of cultural script, including game code, that ludic mutators performatively appropriate and modify. Virno's radical postulation of General Intellect as a non-state and non-commercial sphere of commonly shared scores could find application to digital media and games in the present and future internet. A free distribution of common play material made entirely by modders would eliminate the parasitic, exploitative 'class' of commercial game developers, and would do away with the unequal poaching relations between players and industry. Such a non-commercial free gaming platform might also foster a greater diversity of varied genders, ethnicities, and play styles within games.

Rejected Gifts

While interesting to consider as a hypothetical platform for player-driven evolutionary game culture, actual modding of computer games has, for the most part, not been an equal relation of partners who share game 'scores' back and forth in free-flowing symbiosis. In the practice of modding commercial shooter games, the 'hosts', the game developers, have superior means and tools of production. Parasites could be anyone with the capacity to acquire a copy of a game and modify, through either a legal game purchase or through piracy. And, game developers also poach off the voluntary labor of players, borrowing innovations that first surface in player and modder communities. Exchange of play material between the

market-driven and the volunteers is impure, an uneven jungle of propriety hosts and thieving parasites.

Unabsorbed by capitalism's appropriation of a subversion, a queer play practice remains as an excess, a forgotten, troublesome, or noisy gift from the perspective of the host, unexploited by commercial interests. De Certeau writes, 'The loss that was voluntary in the gift economy is transformed into a transgression in a profit economy: it appears an excess (a waste), a challenge (a rejection of profit), or a crime (an attack on property)' (27). Similarly, Mauss references a period in Roman law when an attempt was made to curb the exchanges of the gift economy, which were viewed as harmful to evolving the market: 'By a venerable revolution they passed beyond that antiquated and dangerous gift economy, encumbered by personal considerations, incompatible with the evolution of the market, trade and productivity—which was in word uneconomic' (52). The game industry is similarly averse to any obligation to take on the risks presented by the gift economy, yet seems, in the case of modding, to enjoy the prerogative to also profit, on occasion, from the parasite's gifts. Most computer game developers deftly evade any uncomfortable debts incurred from their paying customers voluntary efforts by either turning a blind eye, or pointing to the stipulations laid out in the software user agreement.

The host, in the grip of an impulse to channel ludic eroticism into a heterosexual norm, following North American, European, Korean or Japanese game industry standards, and subject to market pressure from his game publisher to release yet another sellable sequence of action-packed missions, ignores opportunities to parasite the parasites, the ludic mutators and frag queens. Although post-Marxist critics of Information Capitalism, the cynics of shareware economies, imply that the products of free labor are easily stolen by commercial interests, only certain play material leaps from parasite to host, such as the numerous titles released in the United States and Europe at the beginning of the War on Terror, games that unabashedly replicate the counter-terrorist teamwork formations developed in the *Counter-Strike* mod. These newer configurations were not necessarily progressive evolutionary movements of game culture. Attesting to the unknowability of the evolutionary and progressive capacities of the system, Serres writes 'in the black box we don't know what belongs to the system, is against the system [...] not sure whether diagram of the rats (country and city rats) is generative or corrupting' (16). The most infectious offerings of modders and worldbuilders may contribute more to the elitism, sexism, homophobia, and militancy of game culture than the official releases of the game industry itself.

Worldbuilding, customization, skinning, interface modding, expert cheating, game form tweaking, and artistic game hacks are some of the approaches to modding play material that I have discussed in this chapter. Modders infiltrated the interior of the sophisticated game system with noise, appropriating the game's objects and leaving their mark on the game world. In turn, some of their voluntary labors are poached by game companies, who absorb modded material back into their products and then incorporate them into serial commercial releases. Yet, if the mod deviates too far from accepted cultural codes, game forms, representational codes and stereotypes, play material encounters resistance and normalizing barriers in transit that inhibit its crossing over to the industrial host. Serres observes of the host that 'he overvalues the message and undervalues the noise if he belongs to functioning of the system' (68).

In this chapter, I have attempted to track slippery cultural units of play material as if they were viruses, tracing spiraling mutations and dead end paths. Frag queens to female fighters are but one branching among other past and future chains of iterative, modular mutation. Unlike Serres' uni-directional cascade of parasitism that only flows in one direction, the play material of modding travels back and forth between common and proprietary game spheres, both poached and gifted as it passed through the hands of modders (ludic mutators) and game developers. In addition to appropriation, the parasite is also capable of symbiosis when the opportunity is ripe. On a more optimistic note, even the parasite's disruptive noisemaking, although often suppressed or ignored, may clear the stage for a new configuration of play material. For the sake of a more open and diverse game culture, the hope arises that industry will exploit more of the unusual, outside gifts offered by past and future modders and world builders.

3. Activist Game Rhetoric: Clockwork Worlds, Broken Toys, and Harrowing Missions

As ordinary citizens come of age, well-versed in the idioms and genres of digital gameplay, independent games with relatively simple graphics and coding requirements are becoming an attractive vehicle for political messages. Still, we are only beginning to forge an understanding of how so-called Games for Change both serve and fall short as activist tools, as a rhetorical, communicative medium available to concerned game designers hoping to support causes such as environmentalism through a game like *Climate Defense*, to promote awareness of police abuse of African Americans with *&They might not kill you*, or to portray conditions in a French refugee camp in *Heroic Makers vs. Heroic Land*.

In this chapter, I will focus on evaluating two primary approaches. First, what I refer to as the *activist simulation game*, and then I will look at a more empathetic genre of activist game that I call the *harrowing mission*. Looking at key activist games developed over the last couple decades, my critique is not intended to denigrate the laudable efforts of early pioneers of the medium, but to learn even from the mistakes of game-makers whose message or critique is somehow lost to the game. In so doing, I will rehearse an academic approach to games as a persuasive rhetorical medium that has primarily focused on the benefits of procedural computing and simulation. I then turn to more philosophical sources for critiquing game procedurality, which leads me to identifying a handy trick I call the *broken toy tactic*.

The Toy World System

Toy trains circle through a 1:25 scale model of traditional Dutch buildings and landmarks in the miniature city of Madurodam. Miniature cargo ships float along canals and toy delivery trucks loop around a peripheral freeway. These vehicle circulations follow a reliable daily schedule ever since the tourist attraction was constructed in 1952 as a memorial to George Maduro, a young Jewish member of the Dutch Nazi resistance. On travel blogs, visitors remark on the ‘punctuality’ of the miniature city’s transportation, recalling their childhood fascination with the ‘moving parts’ of Madurodam’s toy

vehicles. Despite the vacant artificiality of the setting, the frozen-in-place postures of Madurodam's doll-citizens, and the peculiar conglomeration of national landmarks in one Disney-like city, young and old delight in the liveliness of the toy city.¹

With similar interlocking, repetitious movements, like the hypnotic circuitous loops of a model train set, miniature computer game worlds draw the player into convincing abstractions of everyday operations. The hum of movement within a computer game, the automated circulations of artificially alive 'non-player' characters, the scheduled passages of toy-like trains and vehicles and the passage of sun and clouds, synchronize with outside-the-game spheres of operations, convincing the player of the parallel efficacy of the clockwork model. Bewitched by these motions, the player accepts the toy model system regardless of whether game characters appear in photorealistic detail or are capable of a convincingly human, artificially intelligent conversation. Moving interlocking parts conform to a functional, rational diagram of a rhythmic clockwork universe where all is running as it should.

Similar to the application of simulation in the field of computer science, all manner of lively processes from the world are modeled into game worlds, from gardening to crowd fluctuations.² In the simulation genre game from 2000, *The Sims*, the domestic life of a suburban North American family is simulated in a doll-house-like game where vivacious Sims people eat, walk, urinate, socialize, and speak in 'Simlish', a pseudo-language of emoticons. In this chapter, I will, in particular, draw on the investigations of Gonzalo Frasca, Ian Bogost, and Chaim Gingold into simulation and the 'procedural' logic of games, the lively processes and movements that unfold each time a game is played. Much of this theorization originates from a post-graduate study program at Georgia Tech University directed by Janet Murray, who initially proposed that a computer game is a cultural work produced by a 'procedural author' (153).

Although my argument in this chapter will be informed by the substantial inroads that these past and present researchers have wrought theorizing the dynamic 'procedural rhetoric' of games, what has been overlooked, even by later critics of procedurality like Miguel Sicart, is a closer consideration of procedurality itself. In particular, I am interested in the impact of gamic procedures on political rhetoric and critique in so-called serious games. Serious games is a grab-bag appellation for diverse educational, training, and persuasive games, which I will primarily limit to the analysis of activist games with explicit political and/or persuasive ambitions on the part of their concerned makers. A one- or two-person developer team is often solely

responsible for all aspects of the game-making in these independent small productions, including art direction, design, programming, and play testing. The maker of an activist game attempts to make use of mimetic algorithms in the game to present a persuasive argument in motion, to launch a social, environmental or other activist critique, or to open a political question. In my definition in this chapter therefore, an ‘activist simulation game’ is both a. motivated by an activist or political intention on the part of the game-maker, and b. attempts to harness simulation and procedurality in the game to carry the maker’s political critique or message to the playing public.

A definition relying partially on the author’s intention does encounter inherent contradictions; for example, when games not intended explicitly to be politically persuasive, such as entertaining war games, can easily be read as propaganda. But the desire on the part of game-makers to use games as a form of activist rhetoric and political argumentation, both when they succeed and when they fail if the argument is countermanded by aspects of the game, is a tension that I intend to explore in this chapter. Referring to this difficulty in designing serious games Mary Flanagan writes, ‘These play spaces must retain all the elements that make a game enjoyable while effectively communicating their message’ (249).

In an activist simulation game, a play move is not only an inconsequential act of fun, but also carries symbolic weight by referencing real world issues and problems; for instance, signifying whether a member of a species threatened by climate change like the polar bear in *Polar Plunder* can find enough food under the ice for her cubs. And yet, despite this added worldly weight and consequentiality, it is often difficult to take such serious games seriously. Although game-makers set out to shock players with a moving diagram of harmful and tragic operations, players conversely succumb to the enchantment of lively, toy-like, mechanical processes within the miniature, abstracted clockwork game world, no matter how damaging the actual operations in the exterior world, regardless of how many dolphins are killed or how many tracts of the rain forest are burned. The game asks to be played and mastered, inviting the player to enter into its cause and effect mechanical loops, regardless of the consequences—it is only a game after all.

The toyness of the world of the game, the abstraction of the model that announces itself as game, not life, contributes to this nullification of the game’s critical impact.³ Moreover, I will make the case that the operational movements running inside a game induce a complacency akin to what phenomenological philosopher Martin Heidegger referred to as ‘everyday sight’, a way of ‘Being-in-the-World’ already familiar to us from procedural

interactions in the world outside the game (*Being and Time* 107). So as to better understand the effect of the procedurality of the game on the player, I will therefore draw on what may seem an unlikely and acontemporous philosophical source from outside of communication, game and computer interaction studies, all fields where procedurality is usually accepted at face value as a positive rhetorical aspect of games.⁴ In *Being and Time*, his primary philosophical work devoted to forwarding a temporal, embodied understanding of human existence, Heidegger theorized a common, everyday mode of being (ontology) and a mental framework that he understood as a submersion within the everyday circulations and procedures of the work-a-day, social world (*Being and Time* 78). This practical view on the workings of the world is what he refers to alternately as 'everyday sight' and 'circumspection' (*Philosophical and Political Writings* 107). A railway line transports workers from suburbs to the city, the suburban train stopping to let a passenger alight at an inner-city station, guarded by a vigilant conductor who steps in a back and forth pattern on the station platform. Such an interlocking set of functional workings, which we also see running compellingly in the toy city of Madurodam, is supplementary to Heidegger's 'Dasein in the They', an immersed everyday orientation within the common world (*Being and Time* 167). We seldom question or 'disclose' our place or the place of others in such work-a-day utilitarian operations, for to do so continuously would impede our ability to plug into the 'equipmental workshops' we use to take care of daily business (*Being and Time* 105).

The dilemma that confronts the activist simulation game-maker is that the very procedural logic of the simulation game that he or she hopes to harness for a provocative critique has a bewitching effect on the player, comparable to Heidegger's state of fascinated absorption in the practical workings of the world (*Being and Time* 107). Examples of equipment in *Being and Time*, of clocks, hammers, planes, and needles, speak of a more rhythmic, mechanical, Industrial Age, but almost a century later, well into the Information Age, much of our world is still composed of functional, instrumental relations, on and off the screen (99). Circuitous instrumentality has found yet another abode in the weightless, abstracted toy workings of digital simulation games.

And yet there are exceptions to this 'rule' of the simulation game genre, ways to design games that snap the player out of the hypnotic circle of toy operability, via what I refer to as the *broken toy tactic*. A rupture in the game catapults the player outside the comforting and rewarding operational sphere of the clockwork game world and induces him or her to critical reflection, contestation, or action. The player's shift from fascinated

immersion in moving game world operations to a disturbed confrontation with a malfunction of play is similar to the anxious revelations that occur in Heidegger when a tool, like his oft invoked hammer, is broken or missing (*Being and Time* 102). A break in the smooth functionality of the game discloses its operational logic in greater 'totality' (*Being and Time* 105). For Heidegger, a 'clearing' of everyday sight uncovers the disquieting temporality of 'the who's' limited earthly existence, as well as illuminating his possibilities (*Being and Time* 167).⁵ Yet, in the hands of the activist, this unsettling existential pause or stop, an interruption of the game's workings, is also a moment ripe for the critical reflection and evaluation that precedes the formation of a political stance and possible action, the intended transformation of a critical Game for Change.⁶

In this chapter, I will discuss one other type of activist game, what I refer to as a *harrowing mission*. In a harrowing mission, the single-player action game becomes a persuasive tool for engendering empathy for the suffering of real life persons like war refugees. The player of such a game starts with his or her character cast adrift in the world, encompassed within a crisis. Although the player of a harrowing mission is permitted very few choices over the course of the game, (often he or she can only run, hide, or die), the player's bid for survival, if well-crafted by the game designer, engenders empathy for the plight and suffering of another outside the game. However, as I will later discuss in relation to documentary war games, such a one-sided, impassioned call for empathy can also become a tool of propaganda.

Overseers of Toy World Operations

Let us look more closely at two widely-played activist simulation games, games that are often presented as benchmarks of the activist genre. The player of Uruguayan designer Gonzalo Frasca's airstrike simulator game from 2003, *September 12*, assumes a god's- or bird's-eye position overlooking a Middle Eastern city from above, similar to the perspective over Will Wright's *Sim City* from 1989. In *Sim City*, the player takes on the role of a city planner who constructs and manages a city from above. In fact, many simulation games position the player as a distant overseer of automated, minutely-scaled, toy world workings.

This miniature toy world inspires a 'philosophy of the imagination' as Gaston Bachelard puts it in his musings on doll-houses and toys in *The Poetics of Space* (149). More rarely in Bachelard, the childlike, giddy

wonder invoked by the miniature world is accompanied by a crueller joy, a 'philosophy of domination': 'From the top of his tower, a philosopher of domination sees the universe in miniature' (173). In such 'belfry day-dreams', individual lives are rendered at the scale of flies and greater cumulative patterns become visible from the tower. Michel de Certeau conveys a similar understanding of a powerful overview perspective when he writes of a walk to the top of the former World Trade Center in New York City. The elevation of Certeau's walker from street level to the 110th floor 'transforms the world by which one was possessed into a text that lies before one's eyes. It allows one to read it, to be a solar Eye, looking down like god' (92). These descriptions of godly perspectives also remind us of the alternate term of 'God Games' once used for simulation genre games. In *September 12*, the powerful, omniscient view over the Middle Eastern city, where civilians and terrorists are rendered at the scale of toy-like ants, corresponds to the United States and other global superpowers' capacity for warfare from above by means of remote satellite surveillance, airstrikes, and drones.⁷ The gazer from on high exercises a mastery and control of the visual field, where patterns and circulations are observed and controlled.

The goal at the outset of *September 12*, similar to many commercial war games released shortly after the terrorist attacks in the United States on September 11, 2001, appears to be to eliminate terrorists from the streets of a Middle Eastern city, identifiable by their gray robes and machine guns.⁸ But as the game proceeds, the player apprehends that the more frequently he launches missiles on the terrorists in the city, the more neighboring civilians, including women and children, are converted into terrorists. The interactive escalation of violence in Frasca's game becomes a dynamic, interactive demonstration of civil rights leader Martin Luther King's saying of 'violence begets violence'. Forging a rational feedback loop between the player's actions and visible outcomes in the game environment, *September 12* simulates an escalating cycle of conflict exacerbated by the War on Terror. In hindsight, this game could even be said to have predicted the growth of terrorist organizations like the so-called Islamic State (IS). Through the interactive simulation of escalating strife between the air force striker and the terrorists, *September 12* makes a case for peace and against war.

But here we may be slightly misled in applying Frasca's own belief in the rhetorical efficacy of simulation to the analysis of the game ('Simulation 101' 6). The cycle of violence escalation largely becomes illuminated in a critical light because the game does not work properly as a game—the only way to win the game would be to abstain from playing, from interacting with the



Fig. 3.1: *September 12 (2003)* by Gonzalo Frasca; Game Screenshot.

game!⁹ On the flip side of the ‘positive’ simulation of a damaging cycle of violent escalation lies a negative argument for non-intervention, for non-engagement, a ‘no play imperative’ for either war or games. Paradoxically, can the simulation of a harmful process only become visible (disclosed) to the player, and thereby leveraged as critique, if the game is made frustratingly unplayable, in effect rendered a broken toy? Before we continue with this question, let us examine how the rhetoric of procedurality and simulation have been understood in game scholarship thus far.

Murray was one of the first to call attention to the procedurality of games and electronic media. According to Murray:

Procedural authorship means writing the rules by which the texts appear as well as writing the texts themselves. It means writing the rules for the interactor’s involvement, that is, the conditions under which things will happen in response to the participant’s actions. It means establishing the properties of the objects and potential objects in the virtual world and the formulas for how they will relate to one another (152).

Bogost refers to the impact of such gamic procedural mechanisms on the player as 'procedural rhetoric': 'I suggest the name procedural rhetoric for the practices of using processes persuasively, just as verbal rhetoric is the practice of using oratory persuasively and visual rhetoric is the practice of using images persuasively' ('Rhetoric of Video Games' 125). As a rhetorical form, game procedurality appears to be a powerful newer mode of political communication available in the public sphere. Similarly emphasizing the communicative power of game procedures, according to Frasca, a game designer or 'Simauthor' (simulation author) communicates via the rules, logical processes, and algorithms in the game that model the trajectory of outside the game workings and outcomes: 'Whoever designs a strike simulator that is extremely hard to play is describing his beliefs regarding social mechanics through the game's rules rather than through events. [...] They are not only able to state if social change is possible or not, but they have the chance of expressing how likely they think it may be' ('Simulation 101' 6).

Activist game-maker's such as Frasca therefore believe it is possible to harness the procedures of the game to mimic the probable outcome of a military assault, and to thereby communicate a particular belief about the working of the world to the player-citizen, a citizen who might live in a nation with voting or other influence over the course of the war. Simulation games deliberately encourage the forging of correspondences from inside-the-game actions, procedures running within Johan Huizinga's 'magic circle' of play, a space for play separate from ordinary life, to external spheres of action, so as to provoke a confusion that Bogost dubs as 'simulation fever': 'But for the magic circle to couple with the world, it must not be hermetic; it must have a breach through which the game world and real world spill over into one another' (*Unit Operations* 136).¹⁰

But even if the overall effect of the mixture of worldly and gamic procedural spheres on the player is Bogost's 'simulation fever', which confuses the operations of reality and game, this does not mean that the player interprets the simulated operation as disturbing or tragic, as intended by the activist game-maker. This communication failure occurs in another widely played, free to download, activist simulation game released in 2006. Like September 12, *Macdonald's Videogame* affords the player a 'great overseer' overview of a miniature toy world system. Also similar to *September 12*, *Macdonald's Videogame* simulates a harmful operation, in this case not an escalation of violence but an environmentally destructive fast food industry. *Macdonald's Videogame* is structured as a managerial simulation game. The game is designed and programmed entirely by Milanese Paulo Pedercini, the



Fig. 3.2: *Macdonald's Game* (2006) by Molleindustria; Game Screenshot.

prolific designer behind Molleindustria's many activist games. The game is attractive and colorful, and impressively polished for an independent game, with an elaborate graphical user interface button panel reminiscent of the commercially produced *The Sims*.

The player of *Macdonald's Videogame* alternates between managing four distinct production cycles: a. the overseeing of farm production and livestock; b. administering to a cattle feedlot and slaughterhouse; c. managing a chain of hamburger-griller workers; and d. negotiating policies and marketing campaigns in 'corporate headquarters'. The challenge of the game is to effectively multitask, manage, and maintain the production routines in all four areas without letting one slip. As the player's skill improves, outcomes of actions in one sphere of operations have ramifications elsewhere in the game. For instance, if not enough cattle are raised, negative consequences arise further up the hamburger supply chain, ultimately effecting the Macdonald's Corporation's profits or losses. Although *Macdonald's Videogame* periodically discloses snippets of textual information critical of fast food industry practices, it is the simulation of these lively processes that imparts a convincing overview of interlocking cycles of fast food bio-production, from deforestation, to public relations campaigns.

This lively simulation of interlocking workings in *Macdonald Videogame* also exerts the enchantment of what Chaim Gingold refers to as a 'miniature garden', a reduced, abstracted world like a Japanese garden, model train set, or a doll house. Over the course of his Master's thesis, Gingold expands on the term he encountered in an interview translated from Japanese with Shigeru Miyamoto, the influential game designer of Nintendo computer games ('Miniature Gardens and Magic Crayons'). Gingold writes,

a garden has an inner life of its own; it is a world in flux which grows and changes. A garden's internal behaviours, and how we understand those rules, help us to wrap our heads and hands around the garden. [...] Gardens, like games, are compact, self-sustained worlds we can immerse ourselves in' ('Miniature Gardens and Magic Crayons'). The reduction in scale and in complexity in a Japanese garden, the scaling down from forest to tree, from lake to pond, serve in a game as a cognitive aid for the player's apprehension of the systematic clockwork world, a miniature sphere of operations. Each abstracted component of the miniature world appears to be placed just where it belongs, for nothing is missing, and nothing can be taken away (Gingold).

Gingold's miniature, Japanese garden-like game is a *lively* system. Growth follows its own animated trajectories, enhancing the magical vivacity of the toy world, but also demands that the player intervene and maintain inputs and outputs, growing soy and fattening cattle, processing them into hamburgers and selling them to customers. The player in *Macdonald's Videogame* assumes the managerial position of a head gardener, planting, producing, and pruning, nurturing, and administering to the game-system. This more production-oriented, managerial role in *Macdonald's Videogame* contrasts to the player's airstrike view over the village in *September 12*. Yet, in both games, the player still performs as an overseer and manager of miniature toy world operations. The assumed goal of many such simulation games is the continued survival of the artificial system itself—the toy world's motions must never stop.

Despite recurrent dips into bankruptcy, *Macdonald's Videogame* operates so well as managerial training software for the maintenance of a toy-like, cheerful cow and hamburger world that ironic sections of text critiquing unethical fast-food practices pass by unremarked on by players. For instance, an anonymous fan of *Macdonald's Videogame* from 2009, who seems entirely oblivious to the game's subversive message, captions the game as: 'A game I

found on the web I thought it looked fun so I'm showing it off to the YouTube Nation'. When my game design students in Singapore played *Macdonald's Videogame*, they seemed largely unconcerned about the detrimental side effects of hamburger production on workers, animals, consumers, or the environment. They were willing to undertake the necessary to keep the game system alive and the Macdonald's corporation above the bottom line, even adding diseased cows to the food chain. The motions of the toy world of *Macdonald's Videogame* become an argument for fast food production, countermanding the subversive, critical agenda of the game-maker.¹¹

Another much earlier historical example of an activist simulation game that similarly fails to deliver the game-maker's intended criticism of an allegedly harmful operation is the American Quaker Elizabeth Maggie's *Landlord's Game* from 1904. Maggie designed the board game to criticize the accumulative greed of landlords toward their tenants. But later, the *Landlord's Game* evolved into the board game Parker Brothers trademarked and marketed as *Monopoly*. The enchantment of playing a game of acquiring properties ultimately overtook Maggie's intended critique of exploitative rental practices. Bogost's contention that games persuade with procedural logic about 'how things work', understood in light of the pure efficacy of gamic procedurality itself, could be reworded as games persuade no matter what is working ('The Rhetoric of Videogames' 125).

The Ordinariness of Interactive Toy World Equipment

Unlike the vehicles circulating in the toy model city of Madurodam that proceed regardless of what viewers do, activist simulation games demand interaction from the player via buttons or a graphical user interface (GUI), conventionally organized into an instrumental dashboard at the edge of the screen.¹² *September 12* presents the player with a weapon for targeting and shooting the terrorists; *Macdonald's Game* offers the player a colorful toy-like button interface of slaughterhouse machinery to convert livestock first into hamburgers, and then a different range of equipment for converting hamburgers into dollars. These descriptions of the interactive equipment of what the game interface does may seem obvious, but it is this very ordinariness in game interaction with simulated operations that poses another challenge to critical and activist game design because the game's machinery contributes to a practical 'everyday sight' perspective among players.

Heidegger offers an example of similar 'equipmental' interaction with a pre-digital, mechanical, modeled system: 'In a clock, account is taken

of some definite constellation in the world system' (*Philosophical and Political Writings* 72), and goes on to write, 'When we make use of the clock-equipment, which is proximally and inconspicuously ready-to-hand, the environing Nature is ready-to-hand along with it' (*Philosophical and Political Writings* 101). In other words, those earthly relations that are simulated or brought along into equipment, such as the movement of the sun from day to night being replicated in the clock, are easily 'discovered' and naturalized in the 'clock- equipment'. Everyday sight easily apprehends procedural simulations of instrumentality as natural. Referencing everyday interactions common to modern Europe in the early twentieth century, Heidegger describes the equipment that is conducive to his everyday operational view of 'Being- in-the-World': 'In our dealings we come across equipment for writing, sewing, working, transportation, measurement. [...] A totality of equipment is constituted by various ways of the "in-order-to", such as serviceability, conduciveness, usability, manipulability' (*Being and Time* 97). Even in a later Information Age, we still recognize the currency of such practical operations, on and off the screen.

Equipment, or the 'ready-to-hand' is easy to see, contrasting to Heidegger's 'presence-at-hand', the term he uses to refer to the sounds and colors of perceived but not yet differentiated 'reality', such as a rumble of noise that upon reaching the ear does not yet resolve into the screech of a passing motorbike (*Being and Time* 228).¹³ Unlike the confusion that such an intrusion of 'presence-at-hand' reality might occasion, the equipment's functionality seems obvious, running smoothly in plain sight, in the common sense realm of 'the They'. Naturally, the player would want to use all available buttons to operate the machinery to farm and produce hamburgers. If we extend our Heideggerian analysis even further, *equipment* refers not only to interface buttons, but also to the larger operations (in his terms 'workshops') that these buttons trigger or manipulate (1927). Simulation games thus simulate alleged processes from an outside the game sphere in plain view, invoking the everyday sight of how things work, the operations of fast food production, or of the efficient airstrike machine.

Although ready-to-hand equipment is easily apprehended, such cause and effect operations are also in another sense hidden. The familiarity of everyday sight or circumspection, conceals 'the totality' of a clockwork operation, the in-order-to relations that it is connected to, including objects and persons at a distance (*Being and Time* 105).¹⁴ Immersion in the clockwork world's operations is a state of 'concerned' absorption that is, to a certain extent, alienated and blind, not only to its own existence, but to the larger repercussions of the operation. The game's movement compels the player to

accept its operations as ordinary, as unquestionable cycles of everyday life, unfolding within plain view or, to be more precise in relation to simulation genre games, within the elevated plain view of the great overseer of toy world operations. The challenge that then confronts the concerned game-maker is that no matter what these simulated operations are, as they run with evocative mimicry within miniature toy worlds, they acquire everyday currency and uncritical acceptance among players via the motion of their interlocking, toy-like workings.

Player vs Game

But do the toy world's procedures really subsume the player to such an extent? Is the operational functionality of the game truly so hypnotic? Furthermore, an allegation could be made that Bogost's rhetorical transmission of procedural game logic from the sender (the game-maker or 'Simauthor') to receiver (the player) is limited by a communication model of sending and receiving. The player in this analysis, even while interacting with the game, becomes a passive recipient of rhetoric in motion. In a similar vein, Sicart critiques the limited role that players are afforded in designer-weighted, instrumental 'proceduralist' game studies, writing: 'Players are important, but only as *activators* of the process that sets the meanings contained in the game in motion' ('Against Procedurality'). Are game designers, then, the only ones afforded the role of agents of engaged ludic citizenship? In support of player agency, in his Master's thesis titled, 'The Videogames of the Oppressed', Frasca proposes that players, not only game-makers, potentially impact the ultimate rhetorical outcome of a game by channeling the course of play into directions unimagined by the game-maker. Frasca turns to Brazilian theatre director Augusto Boal's 'Theater of the Oppressed' for conceiving how a game can depart from 'Aristotelean narrative closure' ('The Videogames of the Oppressed' 7). Frasca writes 'one of [Boal's] most popular techniques, re-enacts the same play several times by allowing different audience members to get into the stage and take the protagonist's role', resulting in unforeseen outcomes' ('The Videogames of the Oppressed' 7).

Such player-directed outcomes are also evident in variations of *The Sims*. Proper gameplay of *The Sims* would consist of following a blueprint for breeding a miniature Sims people family in a doll-like, digital house. Sims characters can marry, reproduce, acquire furniture, decorate, and enlarge their family's house and income—and yet, some players diverge from this 'script'. On the YouTube online video-database, dramatic demises of Sim

life are documented in a grim genre of game videos known as 'Disaster Sims'. In her chapter entitled 'Playing House', Mary Flanagan characterizes these 'macabre' Sims games as the contemporary equivalent of Victorian dollhouse re-enactments of funerals and crime scenes: 'Victorian practices of doll funerals have been translated to macabre Sims rituals where virtual dolls suffer, become malnourished or burned within the normative suburban environment' (58). In a Disaster Sim, the maintenance of the Sims family, of their belongings or of their home breaks down, such as a game showing the birth of twin Sim babies in a burning kitchen. In the Sims 2 Video, *Episode 6: Death*, a final episode by 'someone7272', all the human Smith family burn to death in their mansion, except for two adult dogs, Lulu and Charlie, and their two surviving puppies, (evidently many of these macabre Disaster Sims makers are children). With these morbid, broken games, often ending in fire, we return via a different path, following the player's initiative rather than the game-maker's, to derailed and sabotaged game equipment.

On the other hand, when the toy is not broken, when the system is running without interruption, for example when the player engages with the productive fast food mechanizations of *Macdonald's Videogame*, the player remains blind to the system's repercussions even as he plugs into its persuasive everyday sight. Losing track of time, the player immerses herself in a sequence of game challenges that, if designed well, alternates rewards (points, bonuses, and additional tools), with escalating peaks of difficulty, oscillating within what psychologist Mihaly Csikszentmihalyi refers to as a pleasurable 'flow state' between challenge and skill (74). The flow state may be experienced while engaging in any absorbing activity like work, music-making, or gameplay. When absorbed in a game challenge, the player's fascinated mental and physical state suggests a loss of agency to reflexive game mechanics.

From the realm of phenomenological philosophy, Hans-Georg Gadamer similarly makes the inverse proposal that the game plays the player rather than the player the game. Gadamer, a former student of Heidegger's, conducted an inquiry into aesthetics and art that brought him to the phenomenology of play. Gadamer's player gives up his will to the game while performing the reflexive moves demanded by a game: 'The structure of play absorbs the player into itself, and thus frees him from the burden of taking the initiative, which constitutes the actual strain of existence' (105). The player merges with game, entering into an ongoing interactive, reflexive feedback loop: 'What happens to us in the experience of art, Gadamer suggests, is very much like what happens to us in play: we lose ourselves'

(Weinsheimer 102). Unless the player is forced to reflect upon correspondences reaching beyond the game, the player's critical and reflective capacity, political or otherwise, is easily bespelled amidst the movement of game actions. Reacting with neither doubt, nor on the contrary, belief, the player flows with the game's operational allegations about how the world works.

Only when the model is broken, by the renegade player who willfully alters the course of the game's 'oppressive script', or possibly by a game cheater, or even through a sabotage installed by the game-maker, do the toy world's algorithms and workings become visible. Frasca's *September 12th* catapults the player outside the expected assumptions of the clockwork game world, the logic of rewarding player proficiency with points or more toy weapons. The brokenness of *September 12th* manifests in that playing well delivers loss, subverting the expectation of the player to master a challenge of eliminating terrorists. In *Macdonald's Videogame*, on the other hand, the very operability of the model of fast-food production cycles transmitted to the player overcomes the game's critical impact. Beautiful toys that run too well are always enchanting, no matter how ugly the outcome of their workings. The player is lost to the game.

Harrowing Missions of Refugees

In comparison to the clockwork operations of the activist simulation game, what I call a *harrowing mission* adopts a quite different approach. Let us begin this section by discussing an activist game from 2006 that deploys both rhetorical approaches in different parts of one activist game. The game-makers were a group of students led by Masters student Ruiz from University of Southern California's School of Cinematic Arts. In *Darfur of Dying*, the player controls a young Sudanese refugee character on a mission to forage for water for a refugee camp. The goal of reaching the well is accomplished by running and alternately hiding behind large rocks in the desert each time a militia jeep passes. If the militia kill (and, it is inferred, rape) a character, another child or male or female adult character must undertake the mission to survive. In *Darfur is Dying*, unlike most computer games, regeneration of the same character is not possible. The player may only use up the lives of eight non-renewable characters from the refugee camp. Once water has been foraged, the player returns their character to the camp, waters the garden, and mixes water with mud to form bricks for rebuilding. If water levels drop too low, a character must venture again from the relative safety of the camp to replenish at the well.

Like *Macdonald's Videogame*, the village portion of *Darfur of Dying* simulates the management of a lively, model system, a refugee camp demanding continuous maintenance and upkeep labor on the part of the player. Also like *Macdonald's Videogame*, the village portion of the game presents the player with an overview of the village system. The player must monitor the water level meter for the village well and attend to the meter indicating the level of the overall health of the camp. Furthermore, the village portion of the game is continually interrupted by text messages attempting to redirect the player to a charity donation site, as if to actually derive pleasure from playing the game too long, a game referencing a tragic situation suffered by real persons, would be a moral affront. Like *September 12*, here, the broken toy tactic is used to interrupt the players' fun. But after interrupting gameplay, *Darfur is Dying* does not just deliver a message or lodge a critique. The game implores players to undertake a specific donation action outside the game. In this regard, *Darfur is Dying* is similar to other Games for Change that attempt to raise funds and form support networks for specific charities, causes, and humanitarian crisis.

In contrast to the simulated village camp portion of *Darfur is Dying*, the first water foraging mission in the game is an example of what I mean by a harrowing mission. A harrowing mission is an immersive game challenge that generates empathy for real world sufferers of a crisis by depositing the player into a narrowly crafted game predicament. Unlike the cooler, more analytical perspective over the toy world in the activist simulation game, the player of a harrowing mission, via his or her avatar, inhabits a more interior and emotional position, trapped inside a crisis. This affective experience of the game via an avatar-character is similar to the vicariously thrilling, first-person perspective experienced when viewing cinema. But unlike, for example, an action film's scripted conclusion of narrow survival, the game player's character may die and regenerate multiple times until a challenge is mastered. In *Darfur is Dying*, as mentioned earlier, the player's has eight character lives to use up while attempting to forage water in the desert.

On the way to the well, the player must carefully time the decision of when to run and hide behind the next rock, risking being overtaken by a rampaging militia truck. Action choices consist only of running through the desert and hiding behind rocks, and thus the agency of the player is constrained to a limited set of timed decisions, correlated to an alleged challenge of searching for water faced by the refugees of Darfur. Such a harrowing mission borrows its furtive style of play from stealth computer games like *Thief* and *Metal Gear Solid*, a game genre that has been around since the late 1990s. Unlike the typical shooter's more outright violent



Fig. 3.3: *Darfur is Dying* (2006) Take Action Games, MTV. Used with permission; Game Screenshot.

confrontations against the enemy, the player of a stealth genre game hides and sneaks their way to the mission objective. The stealth genre is therefore more suitable for representing the experiences of vulnerable characters like child refugees who are not professionally trained combatants.

Like the harrowing mission portion of *Darfur is Dying*, the game *Under Ash*, developed by Syrian studio Akfar Media, begins with a stealth mission based on difficult life experiences. Ahmad is a young Palestinian adolescent attempting to survive in the Palestinian territories. The game's 3-dimensional graphics are impressive for the time of its 2001 release. The mission launches with Ahmad attending a peaceful demonstration in a plaza in Jerusalem. The demonstration is attacked by Israeli soldiers and Ahmad's first challenge is to hide from the soldiers and make his way uninjured to a mosque for shelter. Later, he moves underground and joins the resistance movement. Although at the very initiation of the game Ahmad, a civilian youth, participates in this non-violent demonstration in a plaza, he eventually finds it necessary to resort to violence, starting with defending himself with rocks.

Radwan Kasmiya, the executive manager of Afkar Media, relates that many players have been brought to tears while playing *Under Ash* (Sisler). Although *Under Ash* and its sequel *Under Siege* have been exhibited and analyzed as activist games in Western contexts, Kasmiya explains them rather as entertainment media that speaks more positively to youth of their own culture than the Middle Eastern enemy scenarios common in Western action games (Sisler). By the end of *Under Ash*, by dint of walking in Ahmad's shoes through a series of missions, the player acquires an understanding of a particular viewpoint, one that might resonate with the player's own geo-cultural life experiences, or, on the other hand, impart a new perspective.

In *Under Ash*, the walls of Jerusalem and other obstacles sculpt the path of the player's actions within a limited range of likely variations and movements as the player gravitates toward a mission objective, such as reaching the shelter of a mosque. The level designer guides the player along a predetermined path from room to room, from building, to plaza, to street. Unlike a board game, digital game players do not need to read rules, because just playing the game reveals what is and is not allowed. When a player walks a character to the edge of the game, a virtual architectural barrier—a wall, a cliff, or a voice-over command, or other programmed limitation, constrains the range of potential actions. The shape of the environment, its ludiform, sculpts the likely scope of potential actions, serving simultaneously as a pre-programmed delimiter and afforder of actions. As Jasper Juul writes, 'The level design of a game world can present a fictional world and determine what players can and cannot do at the same time' (163). Similarly, Murray writes, over time the simulated 'presentation of the world would make clear the limits of our powers' (178). Play over time reveals prohibitions and action possibilities initially concealed within the game world.

So even though the player of a harrowing mission experiences a pressing contemporary crisis in the game, how to survive the crisis has already been preordained by the level designer, which is why this activist approach does not afford much room for Frasca's player agency to rewrite 'the game script'. Game designer Jane McGonigal once challenged gamers to solve 'world hunger', alleging that if only players of popular games like *World of Warcraft* diverted the billions of hours spent on such entertainment to playing Games for Change instead, they could solve serious global problems ('Gaming Can Make a Better World.'). But at least in the case of a harrowing mission type of Game for Change, the player is not expected to figure out a solution to the problem or crisis, such as a fair and peaceful resolution to the occupation of the West Bank, or an end to civil war in Darfur. The player's more limited goal in a harrowing mission is only for their character to survive to the next save checkpoint. And the maker of such a game's goal is to generate empathy for a particular group allegedly in need of support.

The world's current tragedies and problems, including violent conflicts like war, are potential design inspiration not only for activists, but also for other powerful interest groups looking to raise support for a particular side of a conflict. *Kuma War* is a free-to-play episodic series of action levels that, since 2004, has closely mirrored US military operations in Afghanistan and Iraq. The game's developer, Kuma Reality Games, has evolved a documentary approach to game design, inserting detailed background information into their missions including satellite photos, articles, and a multimedia

library. Each of *Kuma War*'s 200 missions is based on actual US military objectives, including the targeted assassination of Osama Bin Laden in Afghanistan in 2011. Their website showcases a section entitled 'Players in the Trenches' where players' written feedback highlights the game's function as morale support for U.S. servicemen who play the game when off duty. For example, SGT from HHC 1/64 Armor, 3rd Infantry Division (M) writes, 'Being that I will be going back to Iraq for a 3RD tour, I'll say that it's much better fighting from my PC behind a desk then actually slinging lead at each other' (*Kuma War*). The game's developers, who include advisers from the US Department of Defense, unabashedly deploy the harrowing mission as propaganda that valorizes the US military perspective on the conflict, even if the game's function is limited to primarily morale support and diversion for already enlisted servicemen.

Similar to the solo missions of action games, the harrowing mission is a linear, channeled experience with sculpted dramatic ebbs and peaks, when, for instance, Non-Player Character opponents suddenly attack at a turn in a corridor. The game designer has at their disposal an authorial control of the player's experience of the dramatic narrative arc that approaches that of narrative filmmaking, while at the same time affording the player limited interactivity and agency. Should the activist game-makers allow their players greater freedom to make meaningful choices with a variety of consequences, to essentially engage in ethics while at play? Could games with more divergent outcomes still generate empathy for sufferers of a crisis? Take, for example, *This War of Mine*, a 2014 game that, similar to *Darfur is Dying*, focuses on the civilian refugee experience of war. The game was inspired by the long-running Siege of Sarajevo (1992–1996) during the Bosnian war. Indicative of widening scope for even commercial games to address war from a more complex perspective, Polish 11 bit studios' game has been critically acclaimed within the game industry. The game branches into a variety of possible outcomes dependent on the player's choices. As *Civilization's* designer Sid Meier's once advised, good game design consists of offering the player 'interesting choices'. Is *This War of Mine* evidence of a more thoughtful, evolved approach to the one-sided call for empathy (or propaganda) launched in harrowing mission style games?

The player navigates *This War of Mine* through a satellite overview map of a city, zooming from the map into cross-sectional side-views into apartment buildings, a perspective that unsettlingly resembles peering into a war-torn dollhouse. Unlike *Under Ash* and other harrowing missions where the player typically only has only one character at a time under their direct control, the player of *This War of Mine* must shepherd a group of three

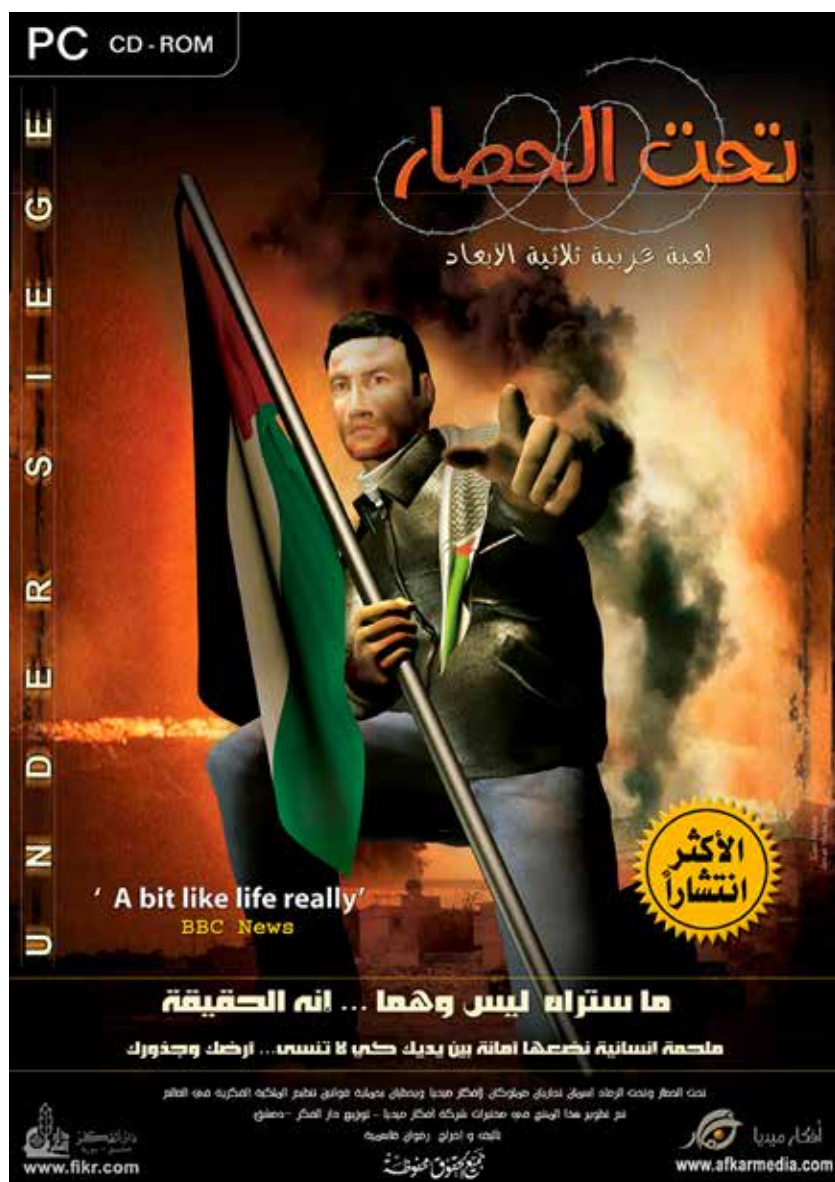


Fig. 3.4: Under Ash (2001) Afkar Media; Web; 1 August 2011.

refugees to survival. Like in a zombie-apocalypse action game, each of the three civilian characters, Bruno, Pavle, and either Marko or Katia, has distinct disadvantages and advantages, such as an ability to cook well with less food. As group leader, the player makes difficult ethical decisions for each character. For instance, a character may decide to turn away starving neighbors who knock at the door. If the player decides for their refugees to undertake entirely amoral decisions, or, on the other hand, to make entirely kind, generous choices, the refugees will not survive until that randomized moment when the system declares a cease of hostilities. Characters lose their grip on sanity, commit guilty suicide after committing murder, or starve. In order for the refugees to survive the war, the player must make both altruistic and selfish decisions. According to one reviewer, the message players come away with is: 'it's a game about accepting that there will be unavoidable actions you regret, and striving to find balance in the shades of gray morality so that you can have the supplies to survive both mentally and physically' (Nichols).

- Although inspired by the Bosnian war experience, this commercial and maturely entertaining game is not intended to directly support or contribute to a charity for former Bosnian war refugees, or to support a specific group of present day refugees. One could even argue that, unlike *Darfur is Dying* or *Under Ash*, *This War of Mine* reveals the amoral side of surviving the war as a civilian, when the player sends their band of refugees out to kill and steal from other civilians. Beyond harrowing, a reviewer recalls the experience of the game as a 'gut-wrenching look at survival on the sidelines of war'. After playing the game, a player might question what amoral acts have actual refugees committed in order to survive? The refugee no longer seems a powerless victim of circumstance, but might in fact be an astute survivor, capable of harming others if survival dictates. Unlike the narrower harrowing mission approach, the open-ended decision pathways in *This War of Mine* therefore do not inevitably lead to empathy for refugees.
- Although not a game that is inconclusively supportive of refugees, *This War of Mine* does draw out the ethical quandaries of the refugee experience. If players find the virtual sacrifices experienced with their band of small dollhouse characters 'gut-wrenching' in retrospect, how much more traumatized and haunted by their past decisions are the actual survivors of the Bosnian War, or the many civilians fleeing the Syrian war? *This War of Mine* promotes a general anti-war stance by exploring the painful civilian dimensions of war seldom represented in games or other media.

Broken Toys and the No-Play Imperative

In contrast to the variable outcomes and ethical quandaries of *This War of Mine*, the harrowing mission is an impassioned, one-sided, emotional call to empathy for a particular game character's predicament, such as a Palestinian teenage boy, or child and women refugees foraging for water in the Sudan. The harrowing mission can also be leveraged to generate empathy and support for more powerful groups in the midst of a struggle, like the professional US Servicemen in *Kuma War*.¹⁵ The constraints of the toy world are leveraged to the harrowing mission's advantage, channeling the player through a series of survival obstacles, and this entrapment can be read as a political and rhetorical enclosure around the player as well. Such games do foster empathy and may serve as propaganda, but do not necessarily galvanize critical thinking or political deliberation. Despite this potential for a one-sided, emotional bias conveyed through the game, the harrowing mission's affective appeal for under-represented subject positions like that of the war refugee is commendable. In this regard, the harrowing mission is a welcome addition to the concerned game-maker's rhetorical toolbox.

In contrast to the dramatic rollercoaster ride of the harrowing mission, within the soothing regularity of the clockwork simulation game, the operational logic of the game takes hold. A player's action inspires a resulting reaction on the part of the game. The game, in turn, compels the player to make further reflexive play moves and, if the game is designed well, the player loses himself, losing even a sense of the passage of hours and days, within the game, absorbed into the game's workings, immersed in a feedback loop, Gadamer's aesthetic union of player and game. The player performs a role among other processes running within the clockwork world through interaction with the game machine and the management of its simulated processes. Like the imprint of a popular tune that demands to be liked through its repeated exposure to the ears, players unreflectively absorb the logic of military operations, internalize the production cycle of hamburgers, flow with the hum of tractors. How satisfying when at least the toy world is operating as it should.

The very operability of the activist simulation game's toy-like procedures potentially obscures its critical impact. The activist game must overcome not only that it is, after all, only a fictional game, so obviously a miniature, brightly colored toy world, devoid of painful consequences, but also that the mechanical, instrumental actions that players commonly undertake in such games invoke the obscuring ordinariness of everyday sight.

In the rational, operational spheres of games, as in the instrumental spheres of life, everyday sight turns away from suffering and the consequences of damaging human operations. Most feel powerless to disengage from, halt, or redirect the harmful goings-on that are naturalized in the everyday world. We flee mortality to the artificial circulations of ageless clockwork toy worlds. In this sense, Madurodam's endless ship and train circulations are an unusually soothing and forgetful memorial to the untimely demise of young George Maduro.

A tactical recipe for the activist simulation game would consist, then, of two steps, first a positive, then a negative: first, to constructively program a simulation of a harmful operation from the world that the game-maker wishes to critique into the game, followed up by either a game-maker or player instigated interruption or sabotage that breaks the spell of the game's movement and procedurality, thereby illuminating its operationality in a critical light. Absorption in the everyday world of 'equipmental' dealings and transactions is broken at this rift of 'in-order-to' relations among entities, things, and persons. Induced to a discomfiting re-evaluation and analysis of the games' operational logic, the player performs a critical diagnosis of the wrongness or rightness of the broken play equipment. After being subjected to the broken toy tactic, a worldly operation's common sense, everyday claim on existence comes into dispute.

What is paradoxical with the broken toy tactic is that game and activist critique remain in the last instance incompatible—only by interrupting or ejecting the player from the game, the no play imperative, is a critique illuminated and a political questioning made possible. Moreover, the intended effect of such games is not just a break in the game, but also the possibility of a stop in the destructive worldly procedure being simulated. The no-play imperative extends beyond the game to the refusal to be a 'player' in the harmful processes of the world. Thus, the most earnest mixture of politics and games often seems to be delivered in games that do not believe in playing per se, but in the impossibility to separate world and game, to separate procedurality in one realm or the other on either side of the ludic border. The activist simulation game attempts to catapult the player from absorption in the clockwork toy world, to a universe of politics that he or she is otherwise quite busy avoiding.

4. City as Military Playground: Contested Urban Terrain

In this chapter, I will tell the tale of a contest for urban terrain pursued by two very different sides; politically engaged artists and the military. In most regards, these two groups could not be more different, with divergent ideological aims, persons, and means at their disposal; yet, at times, both deploy similar tactics in gamified cities. The mid-twentieth century exploits of Situationist artists and architects in Paris, taking the form of 'dérives' and other exploratory urban games, are evidence of the emergence of innovative playful, *artistic* approaches to circumventing the everyday life of the city (Debord, 'Theory of the Dérive'). Information Age artists in the Americas and in Europe later adopt similar interventionist, hacker-like ludic tactics, creating disturbances on the internet, in the virtual alleyways of online computer game cities, and again on the actual street (Schleiner, 'Lessons from Situationist Gaming' 149). These digital culture jammers and hacktivists (hacking plus activism), take on activist agendas, even though their actions are often initiated with loose artistic spontaneity, and lack long-term fidelity to organized political causes.

On the other side of this contest for the urban civilian sphere, game-makers develop sophisticated photo-realistic, 3-dimensional computer games with military and educational resources. These high-end productions take the form of virtual cities constructed as military playgrounds for combat training and rescue operations. A window on a high floor serves as an ideal perch for a sniper to position himself, a parked car in a shell-shocked alleyway offers an opportune hideaway to crouch behind. Although virtual, the settings of military control maneuvers and humanitarian efforts in such games often explicitly corresponds to military interventions in Fallujah, Mogadishu, and other cities of unrest, including even affluent Western cities once considered at peace like New York and Paris. Playing the game closely mirrors, or purports to mirror, the movements of small-scale, military units in urban zones where civilian life has been superseded to the combat and control operations of the War on Terror. Thus, the virtual game city becomes a testing ground for twentieth and twenty-first century military theories such as asymmetrical warfare, anti-terrorist control in populated areas, and the 'Revolution in Military Affairs' (RMA), a technological upgrade of the armed forces in the United States and elsewhere.

In these diverse approaches to the city as a playground, both those of Situationist style artist-activists and those of military strategists, the city's everyday flows of traffic, civilians, commerce, etc. are diverted for the sake of a game. In the militant ludic diversion, virtual and paved streets are mapped and occupied, and humanitarian operations of population management, of refugee transport and of disaster relief, of biocontrol, are conducted virtually, sometimes in preparation for missions in actual cities.¹ In response to this tightening grid of military control over former centers of civilian life, loose-knit clusters of playful, artistic resistance break out. The stakes of these games are who—what manner of players—will claim urban population centers in the imagination and on the ground in the near future.

Military Playgrounds

Communication scholar Roger Stahl defines a cultural object of 'Militainment', such as a game or a film, as 'state violence translated into an object of pleasurable consumption', and as a melding of 'the mercurial and the martial' (6). He describes a shift from a more passive reception of war propaganda and 'war spectacle' via films, television, and radio—that is, from more top-down and hierarchical broadcast media controlled by Hollywood and television studios—to what he refers to as 'the interactive war' whereby civilians are invited to 'play at war' in a game (4).² Once a limited military historical subgenre among other computer game world themes, since the September 11 terrorist attacks in the United States, First-Person Shooter (FPS) games increasingly blurred the boundary between entertaining play and contemporary military conflicts. Typically, North American good guy characters combat Arabic speaking enemies in games such as the *Delta Force* series, *Kuma War's* two hundred missions, and the *Modern Warfare* series. The player's mission is to secure an enemy base, defuse a bomb, assassinate players on the opposing team, or to rescue hostages. These missions are either undertaken alone, in collaboration with artificially intelligent NPCs (Non-Player Characters), or with and against other human team members in multi-player matches.

Let us quickly step through how such a game is typically played. Take, for example, a 2007 level (or 'map') of the *America's Army* game titled 'Suburbia'.³ One team of players endeavor to make their way to a corner of a dusty Middle Eastern city quadrant on a mission of obtaining an

'intelligence briefcase'. En route to their destination, they sneak through shadowed alleyways and dart across open plazas, intent upon avoiding snipers from the other team perched on rooftops. At the beginning of a round, the game software automatically positions the players of the other team defending the briefcase at a remote distance from the first team, affording them a few seconds to select strategic positions. The briefcase attackers flush out the defending team members from hiding, slaughtering them in close quarters with knives or pistols, or taking them down with machine guns or exploding grenades at longer-range. Experienced players keep the appropriate weapon at hand, and efficiently monitor their ammunition count, indicated via the HUD (Heads-Up Display information) at the edge of the computer screen. Players of military shooter games often wear specialized gamer headphones with microphones, communicating via hands-free 'voice radio' in addition to typing in the game's chat window. The players of such hardcore, military First-Person Shooters, who are usually young men, maintain close, coordinated communication with their own team members, and also may 'trash talk' or jokingly rile members of the opposite team.

The Suburbia level described above is one of many maps of the *America's Army* game, a game describing itself as a 'recruitment game' designed to inspire volunteers to join the United States' mercenary army. The primary thrust of the game is entertainment rather than rigorous combat training. Other militarized playgrounds that I will discuss later in this chapter make more explicit claims about preparing the player for real life soldiering through simulated battle exercises, even if they borrow entertaining and unrealistic play conventions from the First-Person Shooter genre that have little to do with military actions and procedures in actual conflicts.⁴ And yet, regardless of the level of fidelity to actual military deployment scenarios, in many of these games, the city is a favored site of conflict. This preference for urban combat terrain attests to a multifaceted militarization of formerly civilian turf via games.

Civilians are gradually becoming more accustomed to a greater military presence within the entertainment industry. As a promotion for the *America's Army* game during the annual E3 Game Industry Conference in Los Angeles in 2003, the United States army catapulted soldiers from a helicopter down between the skyscrapers of downtown Hollywood, California. Passers-by on the street were confused, indifferent, or frightened by the publicity stunt, oblivious to the intended entertainment effect. By the time the *Kuma War* franchise started releasing episodic news-game missions tied to military affronts in Fallujah and other cities in Iraq (discussed

in the previous chapter), other serious military games began to train officers and civilian players in the art of MOUT, an acronym for Military Operations in Urban Terrain.⁵ The military imagination empties the streets of civilians, turning over the city to the conflict between terrorists and counter-terrorists. Only an architectural shell of shop fronts remains of the former everyday activities of the city's softer civilian inhabitants, hinting of a happier, more peaceful time.⁶ Often set in an exotic, distant Middle Eastern land (exotic for North American players), the city is an evocative game setting, especially compared to the lack of cultural history and place in a game played in a more neutral setting in nature, like a virtual field or wood.

Reconfigured as a playground for military operations, the city contours are retrofitted into tactical terrain. Experienced game level designers advise that the underlying blueprint of a multi-player game should take the form of a heart. Looping, arterial tunnels circulate players back into centralized, open zones, forcing them to engage with one another (Blezinski). Level designers of such games discourage building dead end alleyways and streets because a player might hide in seclusion for the entire round. They craft urban architecture for sniping from tall buildings, for the flanking operations of multiple players who converge surreptitiously in alleyways, and to facilitate other urban teamwork operations. In a balanced, fair for all, and pleasure generating map or level, the buildings and streets of the digital game city are carefully woven into ludic terrain that maximizes military themed fun and excitement.



Fig. 4.1: View of game terrain from above; Counter-Strike: Mirage Map. 2016, Web 1 May 2016.

Military Theories of Urban Occupation

[H]yper-terrorism only knows one battlefield: the city. Whether Madrid, New York, or London, the battlefield is the city. Why? That's where you find a maximum of population and a maximum of damage can be done with a minimum of weaponry (Virilio and Lotringer 9)

Although military-themed FPS games are designed to produce satisfying gameplay, these games also implement twenty-first century battle strategies. In recent decades, state-funded militaries, the expanding global securities industry, and private military think tanks have evolved theories and technologies of urban warfare and urban control. These theories and technologies are rehearsed virtually in game cities before being deployed on the ground, as well as surfacing in other entertainment, such as Hollywood cinema and television. I will begin this section by discussing asymmetrical warfare, a military theory with direct application to the counter-terrorist battles waged in games.

In asymmetrical warfare, a relatively small number of technologically augmented soldiers maintains control at a populated site of unrest like a city, or, conversely, a small number of terrorists causes great damage at a similar site of population density. The asymmetry in the term therefore refers to the disproportion between these smaller amounts of either terrorists or counter-terrorist military operatives, relative to a much larger population of civilians. In a departure from his earlier Cold War theories of military logic, Paul Virilio posits that twenty-first century warfare has essentially shifted its 'theatre of operations' from the battlefield to the city, where greater numbers of civilians congregate: 'Asymmetrical war, the terrorist disequilibrium has erased the theatre of external operations (battlefields used to be called "theatres of external operations") in favor of metropolitan concentrations' (Virilio and Lotringer 9). Military and security industries analysts maintain that contemporary warfare is less about contests of nations against nations, or of Cold War era blocs against blocs. Today's asymmetrical warfare is about the maintenance (or imposition) of a particular global world order at key populated nodes –in cities, either in response to, or waged via terrorism. For example, an article featured on the website of the private US military think tank, the Rand Corporation, discusses the future challenge of battles within megacities, cities with more than ten million inhabitants: 'To counter violent non-state actors operating in megacities in the future, the US military will have to be able to piece together a comprehensive and actionable intelligence picture, and under enormously challenging circumstances' (Serena and Clarke).

The city configured as a battle zone is not just a recent military response to terrorism. Urban scholars have hypothesized military origins of the city going back to the defensive walls of the medieval castle, to the ancient fortifications of Troy, and further back in human history (Virilio and Lotringer 19).⁷ Yet, in more modern times of asymmetrical warfare, the populace is no longer protected by a defensive exterior shell like the fortified walls and moat of a castle. The city's population density makes it vulnerable to a small number of attackers who can cause a large amount of damage with an easily concealed, lethal weapon like a bomb or an automatic machine gun. This concentration of soft civilian bodies is the 'asymmetrical' vulnerability that French ISIS terrorists exploited on 15 November 2015, when they organized a series of attacks across Paris at restaurants, cafes, and at the Bataclan Theater music venue.⁸

Terrorists are not the only ones who wage asymmetrical warfare. The military began to implement asymmetrical warfare on a broad scale during the Second World War, when aviators on both sides bombed many cities like London, Dresden, and later Hiroshima from above. In such attacks, a relatively small number of enlisted aviators perished while large-scale destruction and loss of civilian lives ensued on the ground below—utterly devastating and asymmetrical destruction in the case of the two nuclear bomb drops on Japanese cities. More recently, militaries attempt to shield not only aviators, but also those combatants who were once the most the vulnerable and exposed, foot soldiers on the ground. The Revolution in Military Affairs is a protective set of measures intended to minimize the 'asymmetrical' mortality rate of military servicemen and women.⁹ The innovative gear and gadgetry of the RMA support small units of commandos deployed in urban terrain. Like FPS game players, combatants coordinate in small teams and conduct sophisticated teamwork operations, supported by mobile navigational GPS (Global Positioning System) devices and other smart technology (Hardt and Negri 42). According to Michael Hardt and Antoni Negri, 'These new strategies and new technologies are thought to make war practically risk free for U.S. soldiers, protecting them from the threats of any adversary' and elsewhere they write, 'The humans on the battlefield, in the air at sea have become prostheses of the machine, or better, internal elements of the complex mechanical and electronic apparatus' (42; 44). Virilio also observes that in recent times humans 'disappear' into the war apparatus as they are replaced by technological components of 'the war-machine' (25).

Military equipment and infrastructure increases in technological sophistication, supplemented by the three Cs of the modern military—command,

control, and communication. Meanwhile, the soldiers deployed on the ground are not only better protected, but their number proportionately decreases. Deployment in some cases is not even necessary. Leveraging the capacity of remote satellite communication, a US serviceman sits behind a computer screen at a desk at a military base in the Southern California desert and operates a remote-controlled aircraft drone over the Middle East. The operator's person is securely distant from the site of battle, his weapons' interface in appearance similar to the viewport of a flight simulation game. Remote drone and missile attacks pose no physical risk for the operator controlling the weapon, while such attacks often result in the deaths of both targeted enemy combatants and nearby civilian deaths.

In contemporary asymmetrical warfare therefore, unlike during World War One, 'War no longer needs masses of soldiers who are massacred in the trenches' (Hardt and Negri 44). Or, to put the battle back into game terms, warfare no longer requires battalions of pawns, distributed equidistantly across mountains and empty fields, backed up by elephants, cavalry and chariots—as in the ancient Sanskrit predecessor to chess played by Indian war generals. Specialized, technologically enhanced units of five to ten marines or navy seals correspond in scale and function to the 'urban ops' commando teams deployed in virtual game cities, roughly the same number of soldiers on a team roving the fictional, Middle Eastern city of Suburbia. When warfare is viewed through the optic of the most pertinent battle games of the moment, the regenerative re-spawning of the computer game soldier after each deadly round of combat mirrors the alleged invulnerability of the elite, well-equipped urban combatant.

Another twentieth-century military theory that still has traction in the present, 'Full-Spectrum Dominance', refers to a 'gray strategy' of merging civilian and military components, including dominating and controlling representation of the war in the popular media of the home nation. The US military considers the Vietnam War a failure of Full Spectrum Dominance, because it failed to gain public support for the war when television viewers observed video footage of Vietnamese children burned by Napalm. The US military allegedly more successfully implemented Full Spectrum Dominance when it intervened in Latin American nations like El Salvador and Honduras. Similarly, when former US President George Bush initiated the first Gulf War in Iraq, very little media and press coverage of the war was permitted, except for television footage of an US aircraft carrier (Hardt and Negri 53).

More recently, a post-September 11 expansion of the state and military apparatus in response to terrorism is effecting an even greater 'full spectrum' military dominance within civilian, entertainment, and educational

spheres, domains once considered outside the purview of the military, at least on the First World nation's home territory. In 2009, Rita Raley wrote, "The distinction between "civilian" and "military" may disappear. Running war games for this new battlespace requires a massive industrial investment in simulations and computer based training systems, (as of this writing the annual sim budget alone is estimated to be 4-6 billion)' (69). Describing a similar shift in military purview to civilian life, Virilio marks a turn from 'exo-colonization' to 'endo-colonization of one's own population', what he describes as 'a society of national security' where the armed forces turn against their own populations (107).

As urban population centers across the globe are subjected to increased military vigilance and policing, biocontrol maneuvers and anti-terrorist operations are played out for fun in practice runs by civilian players in virtual game cities. According to Stahl, the confluence of entertainment and war in commodity forms such as computer games goes beyond the top-down push of the term that United States President Eisenhower coined in 1961 as 'the military industrial complex' (11). In Stahl's 'interactive war', ordinary civilians eagerly volunteer to play war, an active involvement on the part of consumers that converges with military objectives (4).¹⁰ As discussed in Chapter Two, one of the most popular and longest played game mods in the military simulation genre is *Counter-Strike*. Currently distributed by the commercial publisher Valve, *Counter-Strike* was originally modded by a loose network of volunteering college students across North America, led by Vietnamese-Canadian Minh Le 'Gooseman'. In *Counter-Strike*, the attention to fidelity in weapons, gear, and urban battleground settings in the Middle East, Havana, and other hot-spots, (replacing the original game *Half-Life*'s science fiction theme), as well as its team-based play dynamics, forged the template for later, multiplayer FPS games to come like *America's Army*.¹¹ Although the motives of the volunteer makers of *Counter-Strike* and the more propagandistic aims of the military developers of *America's Army* differ significantly, such gameplay developments passed between players, commercial game developers, and the military, have contributed toward a militarization of formerly civilian terrain.

From Deadly Play to Administrators of Life

Tomorrow's military innovations can be previewed in games. In a recent installment from 2014, *Call of Duty: Advanced Warfare* ventures into the near future with a science fiction mission set in 2054 Seoul, played against

North Korean operatives.¹² The *Advanced Warfare* player chooses to arm a combatant character with either conventional weapons that are accurate recreations of today's automatic and other weapons, or with futuristic 'laser and directed energy guns'. A camouflage stealth 'invisibility suit' also augers of upgrades in military gear on the near horizon. Players also commend the game for the slick informational holograph displayed on the weapon itself, replacing the Heads-Up Display (HUD) typical in such games. These advancements in weaponry, gear, and urban warfare reflect recent innovations in both the military and in game design.

But are such high tech-seeming games an entirely novel convergence of games and warfare? Underneath the glossy futurism of simulated online combat in digital cities, the confluence of soldiering, battles, and play echoes ancient historical examples of deadly games and sports. In his wide-sweeping historical foray into the roots of play within ancient cultures, *Homo Ludens*, Johan Huizinga discusses archaic Arabic contests played for the settling of property disputes that he alleges predate the court of law (108). Huizinga also underscores the potentially fatal consequence for the player who fails to solve a Hindu or Greek riddle: 'In its mythological or ritual context it is nearly always what German philologists know as the Halsraetzel or "capital riddle", which you either solve or forfeit your head. The player's life is at stake' (69). The contests of gladiators waged in Roman stadiums are another example of ancient and deadly play. Gladiator contests evolved from ancient Greek and Etruscan funerary games played against captured enemy warriors at the pyres of fallen comrades of war (Grant 9). And on the other side of the globe, ritual play took a deadly sacrificial turn in games played in the grand stone ball courts of the ancient Mayans. From elevated bleachers, Mesoamerican aristocrats viewed the spectacle of 'the great ball game', a rubber ball game played in variations (deadly and non-deadly) across Mesoamerica for over three thousand years. Mesoamerican archaeologists attribute the greater number of ball courts in conflicted regions to games played as proxy warfare to resolve boundary disputes. For instance, Taladoire and Colsenet write, 'We suggest that the ballgame was used as a substitute and a symbol for war,' and Susan Gillespie contends that the ballgame was 'a boundary maintenance mechanism between polities' (Taladoire and Colsenet 174; Gillespie 340).

The simulation of battle in contemporary computer games of both entertainment and military training, attests to the persistence of a relationship between warfare and games in the present age, albeit undertaken with a different set of twenty-first-century military and play preoccupations.

The military's role has expanded from the full-scale destruction of war to global policing in so-called peacekeeping operations that attempt to control urban hot spots. For instance, a United States Delta Force Peacekeeping force was sent to aid United Nations forces against Islamic terrorists in Mogadishu, Somalia, and is replayable in the game *Delta Force: Black Hawk Down*. A 'biopolitical' transformation is occurring within the military itself, once considered a mere death arm of the state. Describing a modern inversion from sovereignty to 'biopower', from the king's ancient right to demand the death of his subjects to the control over life processes, Michel Foucault writes, 'This formidable power of death [...] now exerts itself as the counterpart of a power that exerts a positive influence on life, that endeavors to administer, optimize and multiply, subjecting it to precise controls and comprehensive regulations' (259). During the transition to modernity, life-supporting and 'administering' governmental institutions came into existence such as hospitals, prisons, and educational institutions.

Now it is not just the state, but the military that is diversifying into new spheres of life supporting influence. International policing, medical aid, and disaster relief are presently considered within a military scope of operations, at least for the larger forces of the United States and other Northern nations. Well-funded, immersive, three-dimensional military games reflecting this diversified military scope are prominent at Serious Game conferences and competitions. For instance, at the 2008 Serious Games Showcase and Challenge, three of four winners were military games on the topics of 'geo-location, military procedures of the Canadian army, and medical treatment of burn victims' (*Serious Games Challenge*). The following citation of an introductory text screen is a telling synopsis of some of the urban 'humanitarian' peace-keeping and rescue missions entrusted to the player who takes on the role of an officer managing a small unit of servicemen in the game of *Full Spectrum Warrior*:

In one moment in time
 our service members
 will be feeding and clothing
 displaced refugees
 –Providing humanitarian assistance
 In the next moment,
 they will be holding
 two warring tribes apart-
 Conducting peacekeeping operations

Finally, they will be fighting
 a highly lethal mid-intensity battle
 All on the same day,
 all in the same...three city blocks.

It will be what we call
 the 'Three Blocks War'
 –General Charles Krulack

In this game of *Full Spectrum Warrior*, released in 2004, players apprehend the tactical and operational leadership skills of urban combat within a three block radius of the fictional Middle Eastern city of 'Zekistan'. In accordance with the three 'moments' described in *Full Spectrum Warrior's* poetic written introduction, game players discover an eerie mass grave, conduct peacekeeping, and humanitarian assistance for refugees, and engage in 'high intensity enemy combat', playing soldiers who are both sustainers of life and administrators of death. The game was developed at the Institute for Creative Technologies (ICT), a United States military funded research center at the University of Southern California.¹³ The website mission statement of the ICT research center states 'ICT's goals are the advancement of the state-of-the-art in artificial intelligence, graphics, and immersive environment with the creative talents of Hollywood and the video game industry' (*Institute of Creative Technology*). At ICT, academia, the military, and Hollywood channel their disparate resources of knowledge, talent, and funding into a Militainment alliance.¹⁴

Full Spectrum Warrior players are both civilian customers who can purchase the game worldwide, and United States officers in training. Not just about mindless killing, players activate their 'brain instead of brawn' while learning to operate devices like a handheld GPS (Global Positioning System) in order to trace a route for the player's unit to 'outflank the enemy'. In the role of a commanding officer, the player controls a small unit of soldiers, hiding them behind parked cars and rubbish bins as he moves them through sequential checkpoints in Zekistan. A training video for the game recorded by an army officer warns players to be wary of civilians like local children and other suspicious, automated non-player civilian characters, who are potentially terrorists in the service of the enemy. In the militarized urban playgrounds of asymmetrical warfare, civilians, including children, are suspect until proven harmless.

In a curious circuitous loop, this same game of *Full Spectrum Warrior* designed for preparing soldiers to be deployed in the Middle East is also repurposed after deployment in the 'Virtual Iraq Treatment'. On the streets

of his hometown, a traumatized war veteran overreacts to environmental noises plagued by insomnia and panic attacks. Travis Boyd, a marine who witnessed the annihilation of his entire unit one day in Iraq, relates that when he returned to the United States, 'I'd have my wife drive me if I had to go off the base. A few times, I thought I saw a mortar in the road and reached for the steering wheel' (Halpern). To treat Boyd's trauma, a military therapist immersed Boyd in a simulation of combat memories with the *Full Spectrum Warrior* game, embellishing with additional sensory effects like a vibrating platform and the odor of diesel fuel (Halpern). She repeated this gamic treatment in multiple sessions until Boyd's trauma subsided.

The din of the battle pursues a traumatized marine from a hot spot of strife to the domestic city at peace, where finally the repeated playing of the same game used in combat training exercises treats the veteran's post-traumatic stress disorder. These diverse applications of the game before and after the battle, in training simulation and later as treatment for memories of flesh-ripping mortars, are symptomatic of a militant society at war on multiple fronts at home and abroad. As in the White House mission of *Call of Duty: Modern Warfare 2*, where the player happens upon the bloody aftermath of a terrorist attack, a seemingly secure city is converted into a battle zone, far from recognized sites of war. The asymmetric war on terror is approaching Full Spectrum Dominance.

The Artist's Intervention as Situationist Game

'Written descriptions can be no more than passwords to this great game' (Debord, 'Theory of the Dérive').

Through urban battle games, counter-terrorism, and population control campaigns waged at home and abroad, the military operations of urban terrain infiltrate the civilian sphere. Although such games speak of a formidable militarization of everyday life in response to terrorism, another set of players offers hope for resistance. As Laura Biagori, curator of the traveling digital art exhibit entitled 'Game as Critic as Art', once commented at a conference panel in Bilbao, if major interests are projecting serious concerns into games, why shouldn't activists and artists as well (*Juego como Estrategia*)?

Because Situationist play provides a useful model for later ludic, media art activism, especially in relation to the city, I will begin this section with a review of the collective that began in Europe in the mid-twentieth century.

The Situationists were an outgrowth of earlier art movements like the Paris based Lettrist International. The Situationists reacted against the apolitical, dreamy, psychological leanings of Surrealism, and were also influenced by the then prevalent Marxist critique of capitalism. In *The Beach Beneath the Street*, Wark analyzes even the lesser known artists and thinkers of the Situationist collective whose habits he describes as 'bohemian at best, delinquent at worst, who set off with no formal training and equipped with little beyond their wits, to change the world' (1). In this section I will attempt to link the interventionism of these Situationists to the ludic tactics of later, Information Age 'hactivist' art collectives (Schleiner 149).

Prior to the immobilizing, alienating trance that 'the spectacle' casts over passive members of capitalist society in later Situationist thought, in earlier issues of the Lettrist International and the *Situationist International Journal*, members like Guy Debord and the architect Gilles Evian developed a skeletal program for active, ludic interventions within the city fabric.¹⁵ At this youthful, more optimistic stage of the movement, (before Debord, in his role as secretary, expelled many of the artists from the collective for a series of ideological infractions), the Situationists came up with a joyful, transgressive ludic program for resisting 'stale bourgeois culture' with interventionist games and spontaneous pranks (Wark 69). Debord writes, 'The first of these means is undoubtedly the systematic provocative dissemination of a host of proposals tending to turn the whole of life into an exciting game, combined with the constant depreciation of all current diversions (to the extent, of course, that these latter cannot be detoured to serve in constructions of more interesting ambiances)' ('Introduction to a Critique of Urban Geography'). These games were initially conceived as a broad-scale ludic assault on everyday urban life, a disruption and *détournement* or rerouting of daily tasks. They also advocated intervention within pre-existing diversions and entertainment, such as art and cinema. For instance, while still part of the Lettrist International group, when the legendary filmmaker, Charlie Chaplin, visited the Hotel Ritz in Paris, Debord and other future Situationists distributed a pamphlet critical of Hollywood titled 'No More Flat Feet'.

In preliminary issues of the *Situationist International*, Debord describes exploits like 'slipping by night into houses undergoing demolition, hitchhiking nonstop and without destination through Paris during a transportation strike in the name of adding to the confusion, wandering in subterranean catacombs forbidden to the public' ('Theory of the Dérive'). These brief accounts of the Situationists early urban exploits cast the oft cited Situationist *dérive* in a more illicit, risqué light than merely drifting about city sidewalks

in an atelic, directionless flâneur's stroll. While discussing a break from the philosopher Jean Paul Sartre notion of a situation, Wark contextualizes the emergence of the *dérive* within the power struggles of these bohemian artists' place and time, writing,

What meaning can there be in the freedom to walk at night, through the Paris of the 1950s, the curfew of the (German) occupation lifted and the curfew of the Algerian War not yet descended? [...] The *dérive* is the experimental mapping of a situation, the trace of the probabilities of realizing a desire. There is still police to contend with and delinquent Lettrists and their friends would occasionally end up in jail for the night' (57).

These youthful explorations, fueled by cheap wine on Parisian streets with occasional run-ins with the authorities, were the beginnings of the *dérive*.

In their written publications, the Situationists formalized the parameters of their illicit walks into what is essentially an urban game. Debord writes, 'from a *dérive* point of view cities have psycho-geographical contours, with constant currents, fixed points and vortexes that strongly discourage entry into or exit from certain zones' ('The Theory of the *Dérive*'). The open-endedness of the *dérive* is observable when the player sets aside the will, the drive to accomplish daily necessities, and instead dedicates a portion of the day to the game, submitting to the 'currents' and 'vortexes' of the city. Traffic and transportation absorb the player into its flow, carrying the player to a new street corner. Yet, the drifting, 'letting go' character of the *dérive* is also constrained by 'calculated' possibilities: 'But the *dérive* includes both this letting-go and its necessary contradiction: the domination of psycho-geographical variations by the knowledge and calculation of their possibilities' (Debord, 'Theory of the *Dérive*'). It would be difficult to call such unpredictable outings games if they contained no constraints or goals whatsoever. A *dérive*'s calculated objectives include a 'possible rendezvous' with an unsuspecting stranger, drawing a 'psycho-geographic' or emotional map of a designated region of the city, and tracing a trajectory of rapid movement through varied urban ambiances and systems, such as the proposed exploration of a closed-off subway tunnel.

Situationist players, three or four being the recommended amount for a *dérive*, do not know precisely when they will conclude their game, although a game has a prearranged start time. Although Debord mentions an exceptional *dérive* of two months' duration, he advises an optimal duration of play of one day: 'a *dérive* rarely occurs in its pure form: it is difficult for the participants to avoid setting aside an hour or two at the beginning or

end of the day for taking care of banal tasks; and toward the end of the day fatigue tends to encourage such an abandonment' ('Theory of the Dérive'). Thus, true to Huizinga's definition of play as occurring in a 'magic circle' separated from the everyday, a Situationist game separates playing time out from the time of attending to daily necessities.

On the other hand, Situationist play is not *spatially* relegated to the magic circle. Such games deliberately transgress the divide that separates fiction and world, crossing the fence from the playground or sports field into the exterior city. Like the computer games of the militarized playground, the *dérive* infiltrates and repurposes the space generally dedicated to everyday pursuits within the city itself, appropriating the liveliness of the urban habitat into the experience of play. Expressing a preference for the perks of the city over the alleged tedium of the countryside, a foreshadowing of the later favored urban setting for military playgrounds, Debord recounts an earlier, misguided, proto-*dérive*-like, Surrealist walk. In Debord's cautionary tale, four misguided Surrealist artists erroneously selected the 'depressing' countryside as their walk setting ('Theory of the Dérive'). The preferred game setting of the Situationists was the pre-existing urban terrain of Paris. This was an old city built around a river of divergent neighborhoods inhabited and occupied over two millennia. Paris in the late 1950s was a public and private mix of markets and businesses, grimy artists' café-bars, government buildings, Gothic cathedrals, underground catacombs, private bourgeois homes, newly tenanted slums, and segments of the map re-patterned by urban planners.

The Situationist player adopts what can be described as a tactical approach to this suggestive and lively urban habitat, exploring the passageways and circuits of the city. Michel de Certeau contends that 'a tactic insinuates itself into the other's space, fragmentarily, without taking it over entirely' (xix). Distinguishing between a strategy's separate 'base' of its own from which to oversee and impose upon space, he alleges that 'tactics can only use, manipulate and divert these spaces' (30). For de Certeau, a tactical position is that of the underdog, borrowing space from the other provisionally like a renter of an apartment, 'whatever it wins it does not keep' (xix). As a temporary intervention, the ephemeral passage of a Situationist game fades from the city streets once it has been played, persisting only in the memory of players and accidental passers-by. But although failing to leave tangible marks on the city, the transient urban games of the Situationists have been preserved through the written descriptions and publications of the movement. As Debord once wrote, the Situationists 'written descriptions' serve as 'passwords' for the future resistant moves of 'the great game' ('Theory of the Dérive').

Hacking the City

Your Intervention section borders on game breaking. Many people (myself included) paid \$50 for a copy of Half-Life, Tribes 2, and Counter-Strike, and what you're telling people to do will ruin the 'experience' for all who play and pay for the game [...] And although Counter-Strike glorifies war, it is the time that we live in, and it is also an extremely enjoyable game (Critique of *Velvet-Strike* project).

The expressed greater aim of the Situationist game was to transform everyday life and behavior patterns with ludic tactics.¹⁶ This is why the interventionism of Situationist style play could portend a greater threat than de Certeau's surreptitious tactics of 'making do from within' that reaps no permanent damage or change (25). Although a new suburb, a massive skyscraper, or a road leaves a visible imprint on the urban terrain, the city is also impacted through less concrete, more immaterial interventions. For example, city officials lament when a non-violent, city-wide transportation strike reaps fiscal damage by intervening in a metropolis' daily business. With the advent of the digital Information Age in the 1990s, the importance of the immaterial circulation of labor and capital, knowledge and signs, has especially come to the fore. The Situationist repurposing of pre-existent urban channels (subway tunnels and streets), and the uninvited transgression of players into everyday spheres of operation (train stations and public squares), anticipated later more immaterial interventions within public systems by Information Age 'culture jammers' who protest and disrupt via hacking.¹⁷

In 1993, the Critical Art Ensemble declared: 'Nomadic power must be resisted in cyberspace rather than in physical space' (25). The virtual public stage of the internet is where 'hacktivism' first played out in the performative actions of groups like the Electronic Disturbance Theatre, a hacktivist artist collective composed of the United States citizens Brett Stalbaum, Carmen Krarasic and former Critical Art Ensemble member, Ricardo Dominguez. Initiated by media artists and digital activists at the turn of the millennium, hacktivism was a convergence of activism and hacking. For example, in June of 1998 Electronic Disturbance Theatre (EDT) launched the Floodnet project, a series of hacktivist actions in support of the state oppressed, indigenous Zapatistas of the Southern Mexican region of Chiapas. A temporary blockage of the Mexican government's website traffic occurred when remote protesters around the world clicked a button on the EDT website to 'ping' the government site.¹⁸ The ping attacks overloaded the

government's web server, making the site temporarily inaccessible, rather than irrevocably damaging the website or penetrating its information. The digital protesters likened this 'ping' hacking metaphorically to a physical strike where people stand at the entrance to a public building, blocking the flow of pedestrian and vehicle traffic for a time. EDT's playful, performative virtual interventionism, by referencing metaphors of street protests and public political actions, contextualized its activist approach within more established and familiar offline traditions of public street protest.

But what about the hacking component of hacktivism? Let us consider hackers and hacking more closely, an activity that has evolved and splintered into various approaches over the latter part of the twentieth century. Steven Levy traces the origins of hacking to the proclivities of an early generation of male geeks in the 1950s with a predilection for tinkering with toy railroads and ham radios, a fascination with electronic gadgetry predating computers and the internet (21). The computer hacking culture that developed among these youth later branches into both the destructiveness of 'script kiddies' and virus writers, and also evolves into the more mature 'share economies' of Free Software and Linux operating system coders. Among many hackers and hacktivists, a credo of 'information must be free' takes precedence over other activist concerns. Paul Taylor and Tim Jordon designate such freedom of information hackers as 'digitally correct hacktivists' (91). Unlike the disruptive, theatrical blockages of hacktivist artist groups like Electronic Disturbance Theater, Taylor and Jordon's digitally correct hacktivists write programs to support the unblocked dissemination of information in communist nations like China, where internet usage is narrowly constricted by government censorship. More recently, information 'transparency' advocates, hacktivists like Edward Snowden and Chelsea Manning, don the mantle of conscientious whistleblowers of their own allegedly democratic nations, disseminating embarrassing state and military data that their government would prefer to conceal from the public.

In a chapter entitled 'Hackers: Loving the Machine for Itself', Sherry Turkle identifies prominent criteria of what she characterizes as a male hacker subculture. This subculture values agonistic striving for technical mastery, and shares an aesthetic appreciation of complexity in machines, which she alleges is accompanied by a preference for simplicity in human relationships (183–218). In a chapter titled 'Men in the Matrix', Jordan and Taylor concur with Turkle's depiction of hacking as a competitive domain of masculine, technical wizardry. They allege that despite the hacker's rebellious reputation, hacking ultimately validates 'the system' (162). Jordan and Taylor write, 'Hackers over-identification with technical means over

political ends and their parasitic relationship to various technological systems means that although they are at the heart of the exercises of power, they remain in an ultimately powerless dependent relationship' (162).

Jordan and Taylor posit that hacktivism, on the other hand, is not prey to the same myopic, geeky technological complicity with 'the system' as just plain hacking, because hacktivism uses technical means to service activist political ends (144). Jordan and Taylor's problematic relegates the means of hacking to the operational strata of computer systems, where they are identified with imperial and corporate power, while activist ends float elsewhere as abstract, social values. Although this telic, goal-driven definition of hacktivism works in some cases, and Turkle has a point that geeks and hackers are often boys and men who boast of technical mastery, this interpretation misses an engaging aspect of hacking and hacktivism. Are hackers having all the fun exploring technological systems, while hacktivists joylessly geek out for the greater good of society? Some hacktivists assuredly also derive pleasure from exploring, prodding, and disrupting a new and unknown system, a system that may never be fully mastered. The more artistic and theatrical practitioners of hacktivism, latter day culture jammers and Situationists like EDT, merge the joy of exploratory hacking with a critique of the same system.

Whether the system being hacked is defined as an electronic system, an urban network of streets, a neural network, or some other type of living, mechanical, or material system, is currently being challenged. For instance, on the YouTube Video Database, short videos tagged by their creators as 'Life Hacks' explain inexpensive, simple 'hacks' of everyday consumer products for Do-It-Yourself projects ranging from how to make a solar charging garden path with glowing paint, to how to rig a recycled, disposable camera lens to a mobile camera. As the novelty of the Information Age fades, computerized and material systems come to seem less divided from one another. A neighborhood becomes a network of streets. Viewed with the eyes of both the hacker and the urban planner, the city shifts from an ossified, crystallized solidity, from a sedentarized place, to a more fluid constellation of overlapping circulations. Virilio writes, 'The city has always been a box full of speeds, a kind of gearshift. The organization of the city is the streets. What are the streets? Rushes' (77). City planners leave their mark, but paths also evolve in response to where people walk. Even a solid-seeming building is subject over time to dynamic social and environmental forces. In the words of Manuel Castells, 'space is crystallized time' (441).

Like a hacker's invasion of a server, the Situationists' explorations of urban systems and maps of urban psycho-geography were an uninvited,

reverse-engineering of Paris' urban layout. Hacking the city apprehends the workings of a system that has been set in place by others, (the municipal authorities, merchants, city administrators, and public officials). Such hacks carry the threat of a power reversal should the hacker divert the system's originally planned operations. Unlike the engineer with his strategic blueprint overview of the system, the hacker initiates her approach as a curious interloper. The identity of the system, of the city or the game, fluctuates as it is poked, tested, and broken.

Thus, an important initial phase of the hack is playful exploration and discovery of a system—in a word, troublemaking. The systematic looping or nodal structure of the sites of the Situationists' pranks, the train station, the tunneling catacombs, the streets during the transportation strike, recall the circuitry and branches of a network, the miniature topography of the computer circuit board. The hacker is drawn to the alluring complexity of an electronic city he or she does not own. Eventually, the hacker approaches Turkle's masterful 'male' dominion of means, and might then elect for complicity with 'the system', at which point the hacker is hired as a system administrator who programs secure, protective firewalls on an internet server, or elects to take on a public post as an official urban planner. Similarly, 'switching sides', twenty years after writing 'The Theory of the Dérive', Debord designed a Napoleonic board game titled 'The Game of War'. But hacking can be much closer in orientation to the Situationist's earlier, urban wanderings. Uninvited exploration, play, and disturbance, within both electronic and material systems, is the primary *modus operandi* of game hacktivists.

Contesting the Terrain

The Situationists' playful, bohemian interventions were targeted at the capitalism of a European city in the late 1950s on its way to recovery from the Second World War. Fifty years later, the military imagination occupied the civilian-commercial city both virtually in battle simulation games and on the ground in actual missions and conflicts on the ground. In the early twenty-first century, in response and resistance to this proliferation of militarized urban playgrounds, hacktivist artists, including myself at one time, shifted their targeted nodes of intervention from websites to online games.

For example, American artist Joseph Delappe's performative ludic intervention initiated in 2007, *Dead in Iraq* memorializes the names of fallen United States service members in the recruitment game of *America's*

Army. Delappe typed the names of fatally wounded American soldiers into the chat channels that overlay the player's view of the game city, distracting players who complained that Delappe was 'taking the fun out of the game' (*Returning Fire Documentary*). On the *Dead in Iraq* website Delappe writes: 'As of 6/15/09, I have input 4042 names. I intend to keep doing so until the end of this war. As of this date there have been 4313 American service persons killed in Iraq' (*Dead in Iraq*). His digital performance, which he views as a sustained act of conscientious objection, reminded players of the potentially fatal consequences of present day military combat, even for the most well-equipped soldiers of the Revolution in Military Affairs.

Combat games like *America's Army* disseminate depictions and simulations of conflicts that retain the excitement, but not the suffering of war. Even those games which portray blood and gore graphically, like the *Modern Warfare* series, do not convey actual pain or death to the player. Characters can always be brought back to life at the next round or the mission can be reverted to the last save point. Communication scholar Stahl refers to the Iraq War as a 'sanitized war', a war with restricted media coverage (25). According to Stahl, the controlled media coverage in effect since the first US-led invasion of Iraq, the 1991 Gulf War, eliminated the more unsightly and disturbing elements of war from public view, hiding the carnage that so disturbed American television viewers during the Vietnam War (25). Although both edited news video footage and twenty-first-century war games disseminate mediated, 'sanitized' representations of war; games are also highly-produced, interactive entertainment. Delappe's *Dead in Iraq* intervention inserts unsettling data on servicemen mortalities into this sterile, mediated battlefield.¹⁹ Playing at war is no longer as entertaining, or even as easy to play, when long lists of young servicemen and servicewomen fatalities clutter the game's viewport.

In 2002, earlier on in the United States initiated War on Terror, I also developed a series of anti-war interventions within a game, in collaboration with two other primary collaborators. The project also integrated actions and digital graffiti from a number of other contributors who participated over the internet. The idea took shape on the day that the United States began dropping bombs in Afghanistan. I was teaching a game modification at the Hangar workshop venue located at a warehouse in the outskirts of Barcelona, Spain. On that day, gunshots echoed in the cement chamber of the workshop from multiple installations of a FPS game, as if they were contributing an eerie soundtrack to news reports of the military invasion. A Second World War-themed game, *The Return*

of *Castle Wolfenstein*, where the violence had once felt distantly historical, became menacing in the present moment. During a break, I chatted with Joan Leandre, another game modification artist presenting at the workshop, about making an anti-war game. A few months later in San Diego, California, I met the artist Brody Condon who suggested intervening in the game *Counter-Strike* for our anti-war protest. We decided to make digital graffiti to spray on the walls, floors, and building surfaces of *Counter-Strike* maps. Condon contributed a homo-erotic image series titled 'Love-In', depicting embracing terrorist and soldier combatants. I launched a farcical mirror website mimicking the graphical design of the official *Counter-Strike* site. We posted an open call for protesters to contribute anti-war digital graffiti to the *Velvet-Strike* initiative. I also posted 'intervention recipes', steps that players could take to intervene in 'gameplay as usual', such as a list of instructions on how to befriend an enemy in an open game server.

Soon after the inception of *Velvet-Strike*, we began to receive angry emails from players. Hostile spam overflowed the *Velvet-Strike* chat forum. Some critics labeled us 'tree-huggers' or complained that we misunderstood that 'the game is a merely game'. Other players demanded that we return to the kitchen and go back to playing with dolls, claiming such games as exclusively male territory. Joan (John in the Catalan language of the Cataluña region of Spain), was the target of hate mails from international players addressed to Miss Joan Leandre regarding 'her feminist nonsense'. I received a death threat. American players accused us of being unpatriotic and a New York-based player pleaded with us not to obstruct *Counter-Strike* matches: 'CS was my way out after 9/11. I played a lot of CS after that, in order to take out my anger against those nineteen bastards who caused the destruction of the WTC. Please, do not ruin my game' (*Velvet-Strike*).

Other players welcomed the intrusion into the game as an entertaining diversion from the existing game, 'more entertaining than the original gameplay itself' in the words of activist Pierre Rahola, who, along with his French cohorts, was simultaneously conducting similar anti-war digital graffiti activities inside a different First-Person Shooter game modification, *Team Fortress* ('Personal Interview Pierre Rahola'). Portland, Oregon-based Chris Birke, who bears the distinctive credential of being an original texture maker of the *Counter-Strike* mod, contributed anti-war sprays to the *Velvet-Strike* initiative aimed directly at hardcore game geeks, such as a graffiti displaying a script to reprogram the left mouse button, customarily used for shooting, to instead drop the player's weapon. And British player 'Ian' shared an extensive list of his own *Counter-strike* exploits:



Fig. 4.2: Velvet-Strike. 2002; Web. 1 March 2012.

I've actually already cooked up most of the intervention recipes on your *Velvet-Strike* site [...] One can at least minimize the killing by finding obscure hiding places on maps and then sitting very still for the entire round where nobody can find one. This generally means each round is three minutes of bloodshed and twelve minutes of trying to find the last bloody player who's crawled into a lift shaft and refuses to move. Hiding is also an excellent time to be very chatty and tell everyone you're scared and you've become a pacifist and beg them to leave you alone. Hopefully you'll shame them into peace (*Velvet-Strike*)!

The trickster, the creative prankster behind the screen, the spoilsport provocateur, cultivates creative frictions and deliberate misunderstandings, playing with the border region between the game and the war, further enhancing the realism of the virtual city with activist graffiti and the insertion of passively resistant, virtual, non-combatant 'civilian' bodies. These ludic hacks inject life's noise into the ghost town previously overrun with militant play operations, impeding the smooth operation of the game. As stated in one flaming critique of *Velvet-Strike*, the intervention actions bordered on 'game breaking', a Dadaist dose of the negativity that Debord projected as a necessary component of future political movements:

'any future constructive position must include a Dadaist-type negative aspect, as long as the social conditions that impose the repetition of rotten superstructures [...] have not been wiped out by force' ('Report'). The critical 'negative' unmaking of one game makes another game, as the ludic border between game and world becomes poetic and humorous play material for artists and ludic mutators to manipulate. Hacking the virtual city became artists' play.

Funny Resistance

Ludic anti-war hacktivism, more entertaining than the game itself, playing another game within the game city while sowing controversy and dissension, seems to mock the seriousness of war, undermining the gravity of death and destruction, its entertainment effect bordering on complicity with the Militainment apparatus it purports to resist. Should game players dare to grapple with activist concerns, or would it be wiser to leave such occupations to experienced activists and revolutionaries, as advised by one of the few flaming emails our *Velvet-Strike* initiative received from the left: 'I know real revolutionaries and your video game is a joke. No offence, but civil war and freedom fighting is not some little game in your precious little suburban world. It's a pity that people like you are so uninformed about politics, agit prop art, propaganda, etc.'. (*Velvet-Strike*).

Yet, resistant actions were never consistently so serious. The American anarchist Hakim Bey underscores the festive atmosphere of the uprising before it settles into more serious, everyday business: 'Like festivals, uprisings cannot happen every day—otherwise they would not be "non-ordinary" ("The Temporary Autonomous Zone")'. Bey's TAZ is a temporary autonomous zone free of state control, an uprising at variable scales, from a dinner party to "a pirate utopia" of eighteenth century escaped slaves, prostitutes, and corsairs, 'remote hideouts where ships could be watered and provisioned, booty traded for luxuries and necessities [...] whole mini-societies living consciously outside the law and determined to keep it up, even if only for a short but merry life' ('Temporary Autonomous Zone'). Time and again, humor and playful merriment erupt in resistance movements, both before and after the disruptive pranks of the Situationists.

Artistic and performative approaches also have their place within activism. Brian Holmes takes note of an artistic turn within late twentieth- and early twenty-first century protest movements, commenting on the playful puppetry and conceptual performance art in anti-globalization street

demonstrations leading up to the WTO (World Trade Organization) protests in Seattle in 1999. He reflects that 'these kinds of actions are about as far as one could imagine from a museum, yet when you approach them, you feel something distinctly artistic' (347). Jordon and Taylor, while tracing the evolution of the anti-globalization movement, describe a carnival-like protest in London with similar artistic, theatrical, and ludic overtones:

On June 18 1999 a global carnival against capital was held. [...] The demonstration in London involved four gigantic puppet heads each of which played music. Masks were handed out in four colors, that matched the colors associated with each head and on which were quoted reasons for the demonstration and a quote from an unnamed guerrilla (who was in fact Subcommandante Marcos). The playing of the theme from *Mission Impossible* signaled those of each mask color to follow their head. Eluding and confusing police, they met up again at the London Financial Futures and Options Exchange (59).

While hacktivist artists are infiltrating digital game cities with graffiti and performative actions, activists orchestrate playful, artistic interventions and protests on hard pavement. Resistance goes ludic on both digital and asphalt streets.

Points of Detournement

Whether the militarized city is a return to an originary military urban function (no longer the protective garrison of the castle-fort but a co-extensive military playground), or whether the primary function of the city as a sedentary 'crystallization' of merchant exchanges is being diverted to militarization, can be left as a matter of debate to schools of urbanists (Virilio 19). What seems evident is that as the military operations of play run through the city, a playful assault is being waged upon the city as a site of commercial exchange and a global metropolitan node, the city as refuge from the poverty or the conservatism of the countryside, the city as an artistic or cultural haven, or any number of other more civilian possible configurations of city.

The military, in alliance with education, the game industry and players themselves, is the prime developmental motor of Militainment games of serious soldier play. These games train for 'urban operations' not only of death, but for life's upkeep and administration in the militarized civilian

sphere. The virtual game city becomes a testing ground for asymmetrical urban warfare tactics that are later transposed to military maneuvers in live, conflicted urban zones. Enforcers rove the increasingly ludic terrain of the city, practicing the anti-terrorist teamwork formations of biocontrol in former civilian turf. This militarized reterritorialization of city can lead to a pathological confusion of place. A traumatized Iraqi war veteran goes into alert mode in the wrong city long after he was expected to have put aside the battle operations of the urban playground.

I turned to the twentieth century's transgressive games of the Situationists for antecedents for an alternate approach to the city as playground. A Situationist play tactic repurposes urban space, the space of others, for the game of *dérive*. Drawing on the illicit, interventionist character of early Situationist exploits, the *dérive*'s appropriation of existing and urban networks, tunnels, streets, and transportation systems, become the play material of 'seriously seductive' games (Debord, 'Critique of Urban Cartography'). While leaving negligible marks on the physical terrain, Situationist play prefigures the immaterial interventionism of hacking. Systems are explored, diverted and potentially disrupted at a certain key juncture, detoured toward a different purpose. Media theorists Eugene Thacker and Alexander Galloway refer to this vulnerable point within a web of relations as the 'Schwerpunkt' (14). Both twenty-first-century activist art affronts and military entertainment cultivate a sensitivity to these key nodes in the game city system that are ripe for playful intervention and occupation. A prominently placed wall provides a canvas for protest graffiti; a rooftop serves as a convenient sniper perch. The playground of the activist play artist, like that of the military entertainer, is the hackable city.

5. Toys of Biopolis

‘Why do I repeatedly dream of the number 4-4-2-3’?

(Yuko Yasako Okonogi)

A jagged patch of pixels on a brick wall phases in and out, revealing a hidden alleyway beneath a veneer of concealing data. Three children race along a sidewalk, leaping across private fences in search of glimmering ‘meta rocks’. Young lady agents working for master hacker Granny’s cyber-detective agency pursue lost virtual pets who have wandered into perilous, illegal ‘obsolete space’. These cute and quirky virtual pets are under constant threat of elimination by toy-robot, anti-piracy enforcers. Yuko Yasako Okonogi, a mild-mannered young newcomer to Daikoku City, wages epic hacker battles and pursues deadly serious ludic quests with and against her new classmates, on the streets, at school, in a hospital, and in an abandoned bus depot. In Daikoku City, digital representations of walls and buildings blend indistinguishably with solid architecture while fantastic creatures and beings float through the city. Artificial life, organic life, and concrete habitations overlap, the infosphere enmeshing the biosphere.

This near future, Japanese city is sketched out across the 26 episodes of *Dennou Coil: A Circle of Children*, a 2007 animated film conceived, directed, and drawn by artist Mitsuo Iso.¹ In this last chapter, rather than analyzing the playing of actual games, I will analyze an animated science fiction television series recounting the playing of fictional toys and games. To Western eyes, Japanese animations might seem childish cartoons, yet such animations trace their lineage back to graphic novels (Manga) intended for both adult and child readers. Even those series’ with young characters like *Dennou Coil*’s ‘Circle of Children’ often explore difficult themes that speak to an adult viewership.²

In the city of Daikoku, according to the back story conveyed in the first half hour episode, the corporation Megamass has distributed costless, light-weight augmented reality glasses to the city dwellers. The entire city’s population, including its children, are integrated into a live field experiment in augmented reality, the overlaying of digital graphics and information onto physical spaces, viewable and navigable via electronic glasses. These lightweight gadgets offer their users an enticing array of powerful features, converging the functions of both ‘older’ technologies like phones and laptop computers with newer ‘mixed reality’ effects. Although some of the more



Fig. 5.1: The glasses reveal another plane of augmented reality; Dennou Coil, 2007; Television.

fanciful applications of Iso's imagined gadgets may never be adopted, such technologies are not so far-fetched, for we already are beginning to use augmented reality applications with present day, smart mobile phones. For example, when a phone camera is pointed in the direction of a neighborhood, the application Google Android's *Places* overlays the live video image with iconic data, indicating the location of restaurants, restaurant reviews, post offices, and other landmarks.

In addition to such practical mobile applications (apps), augmented reality games are also becoming part of the everyday media landscape. The player of the 2011 Japanese Nintendo 3DS portable console saw game characters and a playing field projected onto a live camera view of the player's physical surroundings.³ Similarly, the player of Niantic's 2016 mobile phone game *Pokemon Go* has the option to toggle between a map view or a camera view that superimposes fanciful Pidgeys and other attacking creatures onto a live view of the player's environment. The initial global popularity of *Pokemon Go* inspired journalists to speak of the game as the first Augmented Reality "killer" application. While *Pokemon Go* is a further iteration of Nintendo's collectable pocket monster franchise, *Pokemon*, the game also incorporated mapping components of Niantic's prior, lesser-known, science-fiction themed augmented reality game *Ingress*, developed while Niantic was still under the umbrella of Google.⁴

Mobile optical technology is also rapidly catching up with science fiction. In 2013, the Northern California home branch of Google initiated a pilot project, selling prototype versions of light-weight, augmented 'Google Glasses' to volunteering subjects. These so-called Google Explorers could activate their glasses to check an overlay of email or social software like Facebook with voice commands and head gestures while simultaneously viewing their physical surroundings. The public reaction to these devices was mixed, with some fearing privacy invasion, especially in the San Francisco Bay area where many Google employees reside and wore the glasses. Although the company has ended the pilot study, Google is working on further iterations of the product and has recently acquired an allegedly revolutionary retina technology called Magic Leap. Meanwhile, Microsoft is developing the Microsoft Hololens, an augmented reality headset targeted at entertainment and games. Facebook recently acquired the Kickstarter-funded gamer glasses company Oculus Rift. A number of other companies in the mobile phone field are developing Augmented Reality and Virtual Reality devices, including less expensive head gear devices, like SamsungVR, which slots a user's mobile phone directly in front of their eyes.

Although futuristic glasses are a tangible way to conceive of such developments, there is also a less visible infrastructure that must be developed for the Augmented Reality component of such a gadget to work. The mobile phone or glasses device usually exchanges information with 'the Cloud', mobile data about locations and users that can be accessed from anywhere wirelessly on the populated grid. In this chapter's science fiction tale, Yuko and the other child-characters of *Dennoi Coil* use their augmented reality glasses gadgets to play games on the streets of Daikoku City. They create magical artificial creatures who roam the city sidewalks. They retrace data trails marked onto alleyways and roads by other players. They program and trade illegal hacker software with one another so as to elude the electronic toy police. Meanwhile, the adult characters of Daikoku City seem entirely absorbed in the more mundane affairs of daily life—working, running errands, and preparing meals for the children. So, in one sense, although not of age to assume the voting rights of citizens or participate in a formal political system, the children of Daikoku City are a free and influential segment of this Asian city's population, for they have been afforded the power of 'playing the city'. Their innovative toys and games warp the very fabric and appearance of the everyday urban habitat, beyond the uses imagined and legally permitted by the corporation that manufactures the glasses-gadgets.

And yet, even though these glasses afford their users powerful, re-programmable tools and features, players are still subject to external control through these very same devices. Entities such as corporation, family and municipal government, whom in this chapter I shall refer to as 'biocontrollers', exploit the monitoring capabilities embedded within the gadgets to track, study, and control their users. Occupying a mediating position between the biosphere and the infosphere, Dennou Coil's augmented reality glasses are a conduit for lines of control and power that flow through the city populace. The actions of every city dweller are visible and recorded to data clouds via their mobile gadgets, wireless information clusters that are accessible to various degrees to the biocontrollers.⁵ This vision of a hyper-controllable, information-infused future city follows through on Paul Virilio's prediction that today's infosphere is 'gearing up to rule tomorrow's biosphere' (Virilio Reader 193). The recent concerns in response to the Google Glasses experiment, which in their most vocal form became known as the 'Stop the Cyborgs' campaign and went as far as a bi-partisan letter read to the US congress, attests to the privacy concerns and social challenges that such wearable surveillance technology poses.

The primary objective of this chapter is to explore the apparent contradiction that the glasses both track and control their users, thereby inhibiting their freedom, and yet at the same time are powerful, liberating toys. Toys, unlike games, do not have preset objectives, for toys can be repurposed toward different ends. My comparison in this chapter of toys vs games will pick up on the discussion of Roger Callois' opposition of chaotic, open-ended play vs more rule-bound play broached in Chapter Two. The toy apparatus, following the open-ended definition of a toy, can be played in ways unforeseen by the makers of the gadget, for instance, rewired to redirect or block social control. In this chapter, I question how these high-tech toys may be deployed to resist the control effect of the apparatus. Are these urban toy-gadget users fundamentally a technologically subjugated populace? Or do technological toys confer a kind of public freedom to Daikoku City's children, a freedom distantly analogous to that once allegedly exercised in the ancient Greek 'polis'? In Classical Age city-states, the polis was the politically active body of democratic citizens who politically exercised power at the scale of a city.⁶

The setting for playing these augmented reality games and toys is in the city. In the preceding chapter, we witnessed the military and policing biocontrol operations of an asymmetric war on terror infiltrating the civilian sphere of the city via urban battle games. In this chapter, I read Iso's imagined biopolis as a portent of a possible near future when more civilian interests claim a stake in implementing biocontrol within population centers. Interestingly, the children's games in the series manage to rupture this overarching web of municipal surveillance and control. A street can be repurposed from the utilitarian circulation of merchandise and workers to a passageway for ludic contests, or a segment of the sidewalk can be chalked off with hacker tools into a dark zone of so-called obsolete space that eludes the anti-piracy data vigilance of the toy police. The children also play exploratory urban games with more serious objectives, retracing risky paths that uncover corporate abuses by the fabricators of the glasses, the Megamass Corporation.

Which faction of characters does this science fiction narrative side with in these power struggles over electronic and physical turf—is Iso entirely sympathetic to what we might call the ludic resistant youth and its female hacker leaders? The leveraging of popular science fiction as a platform for social and political critique has varied precedents in the West and in the East. The *Dennou Coil* series is heir to a critical science fiction tradition rooted in wartime history and the rapid modernization of Japan. The series' vision of a future, electronically augmented biocontrol society echoes an

apocalyptic distrust of technology prevalent in late twentieth-century and turn of the millennium Japanese Manga Comic Books and Animation Series like *Ghost in the Shell*, *Appleseed*, and *Neon Genesis Evangelium*, a wariness about the benevolence of scientific and technological advancements not easily abandoned since the nuclear fallout of Hiroshima and Nagasaki. In a similar, although less apocalyptic vein, at certain moments, Iso's series questions the benefits of the augmented reality that many predict will soon be the next iteration of the Information Age.

From the outset of the series, Dennoi Coil also draws on a disparate strand of science fictional social critique, the rebellious, anti-corporate, hacker figure of Cyberpunk. North American novelists of 1980s and 1990s fabricated scenarios that departed from contemporary social conditions on earth by smaller degrees than the escapist, intergalactic, space adventures of older science fiction. The novels of William Gibson, Philip K. Dick, and Pat Cadigan predicted increasing economic disparity between classes, neoliberal globalization, a shrinking public sphere, and branded privatization. In Cyberpunk's near dystopian futures, the hacker is the anti-hero or heroine who resists the manipulative corporation, deploying the corporation's innovative tools against it. Similarly, in *Dennou Coil*, hackers investigate tales of unethical corporate experiments, using the Megamass company's own glasses to conduct these exploratory games. Interestingly, Iso's most skilled hackers are girls, (and a cunning Granny character), possibly an archetype adapted from feminist Cyberpunk. Yet, unlike most of their Western counterparts, these hackers—except for the cackling Granny character—wax the childish, feminine appeal of the '*kawaii*' or cute in Japanese.

Iso's tale is not as one-sided, nor as damning a critique of globalization and the corporation that is put forth, for instance, in the 1982 film *Blade-runner*, where a corporation conducts blatantly exploitative, profiteering ventures with humanoid 'replicant' slaves.⁷ Ultimately, as I will show over the course of this chapter, Dennou Coil's child-hacker characters' ludic resistance to invasive control falls prey to the capitulatory message that, at some point, players must grow up and contribute to the survival rhythms and well-being of the biopolis, the city composed not only of dead buildings, but also of living citizen bodies. The storyline suggests that many instances of apparently sinister control and disciplinary action, such as Megamass experiments on hospitalized children, are ultimately justified for the good of the bios. Megamass corporation employs local family members, and, in what may resonate with an especially Japanese sensibility, in latter episodes, as I will discuss later in the chapter, corporation and family will become one.

Nevertheless, Iso's tale, whether intended on his part as a nuanced social critique or merely as a risqué coming of age story, exposes what can be understood as more insidious control mechanisms than those harbingers of invasive scientific and technical control articulated in Western speculative science fiction counterparts. Control and scientific manipulation for the sake of the economic vitality, the health, or the security of the populace, which, in this chapter, I will argue is the essence of a biopolitical rationale gaining traction around the globe, makes these control apparatuses, like the Megamass mobile gadget experiments on the populace, especially difficult to refute. Although present-day, technologically advanced Asian cities may well serve as incubators for a kind of biocontrol similar to that implemented in fictional Daikoku City, such economic and techno-social developments are by no means limited to Japan nor to the Asian region.

Biopolitics, Apparatus, Gadget

In this section, I aim to theorize the underpinnings of population control within Daikoku City, eventually narrowing my analysis down to a discussion of the control effect of mobile apparatuses like Dennoi Coil's glasses-gadgets. I will begin by rehearsing varied formulations of modern biopolitics in Michel Foucault, Giorgio Agamben, and Hannah Arendt. I will then analyze the control function of the augmented reality gadgets in Daikoku City, drawing on Agamben's reinterpretation of the Foucauldian apparatus as a gadget like a mobile phone in his essay 'What is Apparatus?' In the subsequent section, I apply Gilles Deleuze's conception of the mobile, networked 'control society' to Daikoku City's augmented population. Finally, toward the end of the chapter, I counter this oppressive picture of a future city dominated by various 'biocontrollers' and control technologies, with hope for resistance to be found in ludic sidewalk games played with these very same toy-gadgets.

Although there are crucial distinctions among the primary theorists of the biopolitical, the term evokes an attention to relations between life and power, and inscribes a tension between bios and politics, however differently the two terms are defined.⁸ In Foucault, this tension is constituted as the bios (populace) subjugated and shaped by 'disciplinary' state institutions. In the Foucauldian analysis, the biopolitical arises at a key inversion from death to life, when during the seventeenth to nineteenth centuries in Europe, the king's spectacular symbolic 'sovereign' power of death over subjects gave way to a disciplinary state-society of life-supporting governmental

institutions, from public schools, to hospitals, medical practices, and prisons. Foucault's lectures delivered at the College de France in the late 1970s cover the production of 'subjects' and 'populations' in relation to these historical transformations of governance, and in his view are followed in the twentieth century by the market-driven, economic forces of 'biopower' (*Security, Population, Territory; the Birth of Biopolitics*).⁹

Alternately, Giorgio Agamben describes a more philosophical opposition in biopolitics rooted in the classical distinction between *bios*, (the Aristotelean proper life of the citizen including his participation in the 'polis'—the political life of the city) vs *zoe* (life stripped of citizenship and biography) (*Homo Sacer* 1). He points to an originary biopolitical figure, *Homo Sacer*, from ancient Roman legal texts. From a juridical point of view, *Homo Sacer* was a non-citizen who was not legally murdered when he was killed, for his demise was considered similar to the putting to death of an animal or a slave.¹⁰ Agamben argues that in modernity and beyond, the state retains the prerogative to invoke a 'sovereign' decision to reduce civilian status and political personhood to a condition of 'bare life', similar to the vulnerable animal-like legal status of ancient *Homo Sacer*.

The state enacts emergency suspensions of a subject's legal status, allegedly in order to protect an assumed vital, biological whole—a nation, a people, or an urban population, from infection by an alleged security threat from within, whether it be terrorists, hackers, or other alleged undesirables, such as a targeted ethnicity, gays, illegal immigrants, illegal software, or a pandemic disease.¹¹ As discussed in the previous chapter, Virilio refers to the war waged within against civilians in more recent times as 'endo-colonization', as governments and militaries turn against their own populations (107). A population understood as a vital whole in need of nurturing care and the occasional harsh discipline also resonates with Arendt's assessment that in modernity, governments took over disciplinary 'housekeeping' responsibilities from the feudal household, acting as if entire populations were families (33). In Arendt's view, this historical transformation diminishes the possibility for modern political exercise, as well as being a key factor of totalitarianism. Rising rightist politicians in both the Americas and Europe, whose rhetoric of fear calls for force against alleged population threats, including the torture of terrorist suspects and the building of walls against foreign immigrants and refugees, offer renewed contemporary evidence of Arendt's link between totalitarianism and biopolitics. Arendt's solution is a return to the Aristotelean opposition between a public political life ('*bios politikos*') and the survival-oriented 'sphere of necessity' (24). As discussed in Chapter One, she locates this

distinction ideally in the separation of household economic governance (the *oikia*) from politics (the *polis*) in the ancient Greek city-state (13).¹²

These varied accounts of the biopolitical seem to be in agreement that, at some point in modernity, the *bios*, the human population, became infused with control logic due to a convergence of the practical and the hierarchical, the economic and the domestic, leading to a relation of social control to a population.¹³ Those authoritarian entities whom I shall later refer to as biocontrollers, such as government, corporation, military, or police, leverage and abuse the rhetoric of necessity in bids for more power. Caring for the population borders on fearing for the population, and may serve as a cover for persecuting demographics viewed as degenerate, unhealthy or alien to the prime body. Thus, even in allegedly free, modern democracies, the logic of the *bios*, through invocations to economic vitality, population health, or security, often comes to take precedence over the exercise of political agency and other freedoms. What distinguishes such a biopolitical analysis, and is also a source of potential criticism from both the left and the right, is that neither the state, nor exploitative economic factors are privileged as a prime societal malady. The biopolitical understanding refuses to choose between either a. a critique of the current phase of capitalism, or b. a critique of state oppression. Contemporary biopolitics instead takes apart the ways governance, globalization, among other potent forces such as technological, scientific, and medical developments, gain a hold over a population through the rhetoric and logic of life.

How does mixed reality mobile technology figure into this alleged biopolitical predicament in a near future city like Daikoku City? In contrast to the larger, historically sweeping dialectics of the *bios* vs. the political, the way I use the term 'biocontrol' in this chapter is narrower, referring to the control of the urban *bios*, of living city dwellers via apparatuses and gadgets. The mobile glasses-gadgets are key to the experiment conducted on the populace of Daikoku City. In the remainder of this section, I discuss the control effect of these apparatuses and gadgets.

The 'apparatus' or 'dispositif' is a crucial construct of Foucault's work on power and subjectivity and he has built the concept up through varied theoretical frameworks and historical objects of analysis in his publications, lectures, and interviews. In earlier books such as *Discipline and Punish* and the *History of Sexuality*, the apparatus refers to institutional systems, (including factors like a hospital or prison's architectural layout and lines of sight), practices like medical treatments and photographic archiving as well as to discourses and social relations. The cumulative effect of these diverse factors, in other words, is the apparatus. The apparatus produces a

certain type of pre-modern or modern subject, such as a mental patient, a Victorian hysteric, or a criminal.

Over the course of his studies of governmental forms and power mechanisms, Foucault's apparatus dematerializes as he distances the notion from any specific institution, practice, or everyday technology. His allusions to the networkable, 'capillary' characteristics of the apparatus, as 'the system of relations that can be established between these elements, heterogeneous ensembles of discourses, institutions, architectural forms, the said and the unsaid' could refer to almost anything (*Power/Knowledge* 194). Contrasting to Foucault's abstraction of the apparatus, in an uncharacteristically blunt gesture, Agamben returns the apparatus to its colloquial understanding as a technical gadget like a mobile phone or a machine-like tool. In 'What is Apparatus?' this move is undertaken in concert with a phenomenological critique of the Foucaultian apparatus. While Agamben retains the broader, Foucaultian tying notion of apparatus as the social 'practices and knowledge [...] measures and institutions' in place to support the use of a gadget, the mobile gadget itself in Agamben's essay is understood as a key form of apparatus. He proposes that apparatuses, like mobile phones, are certain technologies that historically aim to govern and control 'living beings' and 'substances' (13).¹⁴

Agamben hypothesizes that over the course of human history, an ongoing struggle persists between two classes, that of organic beings vs apparatuses, and that this struggle gives birth to a third class: subjects. One human individual or biological organic 'substance' can be tied to multiple 'subjectivities', at once a 'user of cellular phones, the web surfer, the writer of stores, the tango aficionado' (14). The subject is 'that which results from [...] the relentless fight between living beings and apparatuses' (14). The apparatus affords a positivity, leading to unique actions and behaviors, that come into being through the apparatus. This positivity is true to Foucault's understanding of the apparatus, for instance in response to an interview probing his depiction of power in *Discipline and Punish* and other prior works, Foucault inverts the negative, delimiting view of power, instead stressing its positive, generative effects: 'In defining the effects of power as repression, one adopts a purely juridical conception of such power; one identifies power with law that says no; power is above all taken as the force of a prohibition [...] [Rather one should say power also] transverses and produces things, it induces pleasures, forms of knowledge, discourse' (*Power/Knowledge* 119).

Yet, for Agamben, this positivity is over-determined by the apparatuses' side of the struggle, leading to a constellation of human behavior and beliefs that is a shallow 'larval desubjectivity' in the 'current phase of capitalism'

(20). The apparatus thus plays a villainous part within Agamben's narrative of the de-evolution of human subjectivity. As apparatuses spawn ever more 'larval' desubjectivities, humans move toward increasing metaphysical abstraction, increasingly farther away from the phenomenologist philosopher's originary quest for unified embodiment. As the title of *Dennou Coil* suggests, a great portion of the visible world viewed through the mixed reality glasses is 'dennoi', the term the series uses to designate any artificial life form or digital object that lacks tangible, material existence.

Returning finally to the central thread of our science fiction tale, *Dennou Coil* centers on the coming of age of a young girl as she masters the multiple applications and complications of her augmented reality gadget-toy. Yuko first arrives in Daikoku City as a hesitant, timid, and stuttering newcomer. She gradually increases her proficiency in manipulating her glasses, cleverly evades the authorities, and hacks the system to her benefit. Like the coming into her own of a sorcerer-princess, who unlocks hidden inherent powers under duress, Yuko intuitively triggers glasses commands to escape from entrapment spells set by other glasses 'players'. Over a series of epic battles, she learns to identify and navigate illegal 'obsolete space' (illegal uncontrolled space) more adeptly than her peers.¹⁵ Sprinting through alleyways, private gardens, and private property walls, chased by angry adults and virtual security enforcer creatures, Yuko and her friends elude the grasp of the 'dennou' (virtual) toy police.

Like an enchanted seed or pebble from a fairytale, the gadget holds the secret of powerful, spell-like features whose commands the user has only to master and release over time. The path to power of the hacker, the reprogrammable gadget also promises of yet-to-be configured and invented capabilities, given sufficient programming skill. But at the same time, the mobile device is prone to exterior control, regardless of the user's conviction of her own empowerment. Agamben writes, 'He who lets himself be captured by the cellular phone apparatus, whatever the intensity of the desire that has driven him—cannot acquire a new subjectivity, but only a number through which he can, eventually, be controlled' (21). Yuko's epic adventures traversing Daikoku City with her glasses, her emotional attachment to her cyber-pet dog, and her growing proficiency at eluding the electronic authorities, would in Agamben's analysis at the end of the day be effaced by the overriding biocontrol function of the apparatus, reducible to the number haunting Yuko's dreams since early childhood when her grandfather gave her the glasses: 4-4-2-3.

True to the phenomenological tradition he inhabits, Agamben faults the apparatus with abstractions of what were once more embodied,



Fig.5.2: A reoccurring number since Yuko's early childhood; Dennou Coil, 2007; Television.

multi-sensory relations: 'I live in Italy, a country that has been reshaped from top to toe by the cellular [...] I have developed an implacable hatred for this apparatus, which has made the relations between people all the more abstract' (15). The mobile phone projects the speaker to a social plane that is neither here, nor there, as the speaker communicates with a geographically distant listener. From the abstracted domain forged by the early invention of the 'apparatus of language', to the eons-later separation from location occasioned by the mobile phone, the mobile apparatuses of augmented reality, in league with the digital, the virtual, the genetic, and the network, splinter off transcendent realms from the biosphere, drawing the subject into even more 'spectral' planes of augmented reality (14).

A phenomenological dismissal of an inauthentic state of being fostered by mobile apparatuses does not seem to do justice to life and world-forming mediated experience, not even when speaking of the escapades of animated science fiction characters. I would hesitate to characterize the majority of Yuko's mediated adventures with her mixed reality glasses as conducive of the 'larval desubjectivities' of Agamben's mobile apparatus users. Yet, in one sense, his reactionary take on the mobile apparatus rings quite true. Every datazation or abstraction provides an opportunity for an external agent to profit from the divided, mediated relation. A number, a tag attached to the apparatus user wherever she goes, that is laid across every street and object that she encounters, leaves a trailing cloud of data, constituting a tempting invitation for external biocontrol.

The Biocontrol Society

In Iso's near future city, objects, places, and persons are tagged within a networked, wireless grid floating over the urban street plan. Mixed or augmented reality blurs the former division between the physical, embodied world and the informatic sphere. As the glasses accompany the wearer on her daily business, an embedded recording device persistently transmits data to the city's wireless digital network. Each city dweller's actions and information is thereby archived and visible to various degrees to municipal, educational, and government authorities, to security enforcers, socially to other players and citizens, to parents, to co-workers and managers, to marketers, and to corporate researchers, whether or not they choose to act on the information. As Yuko puts it succinctly, 'Our actions have come back to haunt us' (ep. 14).

This flexible grid of electronic control, surveillance, and data collection is described in Gilles Deleuze's notion of the 'control society'. In an evocative, brief essay, Deleuze uses the term to account for the society that results from the dissolving of partitions between separate domains like the home and the factory in the wake of networked mobilization. Although citizens are more mobile and free to move about between work, home, and leisure spaces, conversely in an information infused society, actions are also more traceable at all times and locations. He proposes that the divisions and enclosures of Foucault's 'disciplinary societies' are in the process of transformation into more diffuse and mobile forms of control. For instance, rather than being incarcerated and immobilized in a prison cell, the violator of a minor criminal offense is released to the general public wearing an electronic collar or an ankle bracelet. As Alexander Galloway writes, honing in on the network 'organization principle' of Deleuze's control society: 'control societies are characterized by the networks of genetic science and computers, but also by much more conventional network forms. In each case, though, Deleuze points out how the principle of organization has shifted away from confinement and enclosure to a seemingly infinite extension of controlled mobility' (*Gaming* 87). Such networked control is pernicious, yet almost imperceptible until its consequences are felt. The mobile ties of the control society are elastic, yet seldom release their hold.

Such an apprehensive depiction of a monitored, information and gadget-infused control society might come across as a paranoid, overly-individualist Western agenda being misapplied in this chapter to an Asian cultural object, the Japanimation city. In contemporary Asian cities, we might expect to find greater value placed in fulfilling communal and/or family obligations

than in the West, and could therefore hypothesize broader acceptance of communication technologies that infringe on privacy. For example, taking photographs in public cafes and restaurants with smart phones in most of Asia is more socially acceptable than in the West. Would the Google Explorer project have encountered the same objections to privacy were it initiated in Asia? But ascribing a regional Asian complicity with the control effects of mobile technology and augmented reality devices also falls prey to a post-colonial, 'techno-orientalist' construction of Asians as robotic, technology aficionados. As Toshiya Ueno points out, in his critique of a 'techno-orientalist' bias among Westerners in much of the analysis of futurist Japanimation series, technological innovations proceed in step with global economic shifts that reach beyond the East–West dialectic. He writes, 'If the Orient was invented by the West, then the Techno-Orient also was invented by the world of information capitalism' ('Japanimation and Techno-Orientalism').

At times, Iso does indeed celebrate the future innovations to come in the mixed reality city. The series indulges its viewership with a profusion of imaginative and spectacular applications of the augmented reality glasses that would inspire delight in the Japanese 'otaku' or techno-fetishist. Even so, at other moments, Iso's tales of invasive spying, electronic policing, and unethical corporate biotechnological research highlight the gadget's vulnerability to abuses of control, a matter of relevance in varied transnational and regional contexts that reaches beyond an allegedly Japanese or 'techno-oriental' blind faith in technical innovation.

One such manipulative controller in Daikoku City is the Megamass Corporation, which monitors the children's games and activities via their glasses. The corporation employs sinister toy-like, gamified security enforcers called 'Searchamotrons' (usually shortened to Saatchi's), monstrous, red-and-white oval creatures with detachable floating surveillance globes encapsulated within their two-story tall corpuses. These Saatchi police continuously patrol for illegal software and tools, approaching at a rapid pace whenever they spot illegal objects or actions, such as a virtual fishing rod angling in dark and unstable obsolete space.

In Daikoku City, the modern role of policing as private property vigilance extends in scope to the vigilance of information-infused augmented reality patrolled by these corporation-owned, gamified toy robot police. Additionally, the Megamass Corporation, in line with a Cyberpunk vision of a privatized future, has appropriated responsibilities such as health care and policing from the state and the municipal authorities. The Megamass Corporation tends to hospitalized children and, in a later episode, the

children's public school and the corporation take up a shared residence in a newly-erected skyscraper. This move has alarming implications for the children, who are exposed to the conniving of a rogue Megamass researcher lurking in the building's dim basement.

In addition to the biocontrollers of corporation, police, and municipality, as might be expected in a series following the escapades and contests of a group of children, another frequently alluded to external controller is the family. Yuko and her friends are teased by a pesky younger brother who records spy videos of their private moments via the glasses, and on one occasion Yuko's mother chastises her daughter when her glasses malfunction and the mother is no longer able to track her daughter's location. Domestic supervision extends its traditional scope of vigilance from the home and garden to city streets, relying on the unobtrusive tracking capabilities of Dennoi Coil's mobile glasses-gadgets, much the way early twenty-first-century parents keep track of their children via mobile phones. This expansion of the domestic sphere like an umbrella over the entire city resonates with Arendt's allegation that modern society is an outgrowth of the private household sphere (33). Subjects of unobtrusive, soft surveillance, Daikoku City's children are not as wild as they first appear in the earlier episodes following their urban exploits.

In the final stages of Dennoi Coil, the import of family comes to the fore when a web of kinship between employees of the allegedly abusive Megamass corporation and the hacker dissident children is revealed. We learn that Yuko's soft-spoken father holds a managerial security position at Megamass. Harakan's teenage programmer aunt, who in her youth was a Cyberpunk hacker like the children, later made a conversion (or betrayal) from hacker to Megamass security enforcer and her immediate supervisor is Yuko's father. And Yuko's grandfather had initiated a psychiatric medical experiment on the children, creating the allegedly therapeutic illusion through the glasses that the older Yuko's brother was in a coma being experimented on by Megamass, while in actuality he had perished in a car accident years ago.

In light of these revelations, the suspected corporate abuses investigated in earlier episodes evaporate into childish fantasies fostered by the adults' well-meaning therapeutic fictions. Unlike the Cyberpunk hackers vs the corporation, or the polis vs the police, or other potentially more clearly drawn confrontations, ultimately in Iso's tale, the distinctions are not clear between the dissidents and the perpetrators of biocontrol. Especially over the latter episodes of the series, the characters' allegiances become confusingly muddled and indistinct. A biopolitical rationale emerges for

invasive controlling actions and deceptions that are ultimately justified for the mental and physical well-being of the corporation's own relatives and children.

This convergence of the economic and family spheres echoes the medieval household economy that prefigures Arendt's modern state society (33). Arendt writes, 'necessity is primarily a prepolitical phenomenon, characteristic of the private household organization, and [...] force and violence are justified in this sphere because they are the only means to master necessity' (31). In the future biocontrolled city, a biopolitical rationale justifies manipulative control acts and experiments, (and the threat of force implied by the toy police). These measures are imposed for the sake of the vitality and economic benefit of the overall populace, which is treated, for the good and for the bad, as a technologically advanced variation of a feudal family economic unit. Embedded within the electro-organic bios of *Dennoi Coil* is kinship; one city, one corporation, one family, a narrative thread that begins in the first episode when we see a flashback of Yuko's grandfather gifting his glasses invention to a younger Yuko.

The resurgence of family, which outside of our tale may manifest as a more symbolic than literal discovery of kinship amidst a populace, marks the disappearance of politics into the dictates of the bios, a biopolitical conclusion to a story that began as a Cyberpunk conflict. Although in a certain sense cozy, this finale feels like a deception and betrayal of the young ludic resistance, an anti-climactic, biopolitical excuse for earlier plot tensions. Can it really be that one rogue researcher was the root of all evil and all other suspected power abuses were acts of caring? Maybe Iso intends for his viewership not to entirely believe in this final wrap up, which absorbs the rebellious games and investigations of its hacker youth in earlier episodes into the benevolent, domesticating folds of the biocontrol society.

Augmented Urban Reality and Paidiaic Toys

The city itself gathers the populace in its grip, thanks to the soft touch of the city's mobile wireless infrastructure, regardless of who is the control agent of the moment, literally the family, or the Megamass Corporation, the police, the municipal authority or some other contingent. The series title, *Dennoi Coil*, recalling Hamlet's unbearable mortal coil, refers to a twisting, inescapable 'coil' consisting of 'dennoi', the augmented reality 'electronic brain' technology diffused throughout the municipal grid. And

yet, this electronic augmentation of the city also allows for those other than the central authorities to tweak its strings and fire its municipal neurons. Daikoku City's children remix the augmented urban features of the urban habitat into varied ad hoc games of their own invention. Players both reconfigure, and deftly elude the urban control apparatus, temporarily escaping from the city's hold.

These augmented reality games are ludic mutations of the city's everyday reality. In their appropriation of the contours of the urban milieu, the games are similar to spontaneous, non-digital children's play, such as a game of skipping over lines on a sidewalk. These rules of sidewalk play are under continual revision by players in response to the habitat, as the pre-existing patterns of the city are reworked into the game's ad hoc structure. As walkways, streets, and school building are redeployed in the game, ordinary spaces and the utilitarian objects of the everyday world become play material, similar to the way sticks and stones were once incorporated into a game of sidewalk hopscotch chalked onto a twentieth-century street.

Yet, in contrast to these older urban games, augmented reality urban games also make use of the layer of digital information that has been laid across the city. In the augmented reality city configured as game, everyday objects shimmer with the potential of becoming toys, challenges and ludic obstacles. Daikoku City's children program magical properties into ordinary objects, investing pebbles, a fishing rod, and a hidden alleyway with 'meta' powers, a halo of digital augmentation. Red, wooden doorframes of Buddhist shrines provide welcome safe havens from the Saatchi police, portals to an ancient past free of electronic jurisdiction. Yuko learns from an older hacker girl that she can also chalk an 'instant shrine' on the sidewalk in an emergency. As the city's layout is thus reconfigured into danger zones dotted with safe havens, eluding the toy-like police becomes part of the game, a somewhat sinister gamification of the urban milieu. Although risking punitive consequences for the players such as the erasure of a treasured cyber-pet, these chases between children and authority figures assume the shape of play.

In addition to the power of these mixed reality games to modify and augment the urban terrain, another key characteristic of Daikoku City's children's games is their open-endedness and flexibility, similar to that of the toy. A toy like a doll, stuffed-animal, or set of Lego bricks, can be played in myriad ways. A toy that is repeatedly played with following the same steps toward the same objective, coalesces into a game. Roger Callois designates free-form interactions with a found object, like the chaotic banging

of rock, or an exuberant leap, as 'paidiaic' play: 'The first manifestations of paidia have no name and could not have any [...] But as soon as conventions, techniques and utensils emerge, the first games as such arise with them: e.g. leap-frog, hide and seek, kite-flying, teetotum, sliding, blind-man's bluff and doll-play' (29). Unidentifiable, un-nameable acts of paidiaic chaos and destruction transform into recognizable toys, and finally into rule-bound games. In Daikoku City, there are no games official and persistent enough to even carry names. The children's games are spontaneous, temporal, and subject to shifts in rules and objectives set by the players.

These spontaneous, player-driven, toy-like games are more easily exited than a commercial game's careful, pre-programmed seduction of the player into an immersive sequence of rewards and punishments moving toward a preset goal. With the exception of the glasses apparatus initially provided by the Megamass Corporation to the populace, a private game industry is not overtly involved in the production of Daikoku City's children's games. Free from market pressures, such toy-like games can afford to risk shorter, less addictive holding power, engrossing for a few days, and then abandoned for the next game, approaching the open-ended, fluid objectives that Arendt designates as a characteristic of aesthetic, performative, political action in her Space of Appearance discussed in Chapter One (199).

In the children's hands, the glasses gadget becomes a fabricator of fantastic cyber-creatures that are programmed onto the streets of the city. Repurposed for this toy making, the glasses apparatus is thus diverted from the utilitarian applications commonly demanded of smart mobile phones like communication and mapping. Toys are unbound from the practical everyday functionality of the world, the utilitarian relation between latch, door, and hallway that Heidegger refers to as an 'equipmental workshop' (98). Unlike the clockwork toy worlds discussed in Chapter Three, which aim to model a convincing, everyday operation, the toys in Dennoi Coil respond to a less predetermined, more paidiaic calling. For instance, if Heidegger's street is 'equipment for walking', a toy street could be equipment for hopping, for sliding, or for rolling (141).

Even before sophisticated augmented reality gadgets, play was capable of disrupting the city, testament to the chaotic force of toys. For instance, in Pieter Brueghel the Elder's painting of medieval 'Children's Games' (1560), a tumultuous crowd romps through a Flemish town square, rolling hoops, spinning oversized teetotums (dreidel-like tops), and forming snaking, leap-frog chains.¹⁶ In Daikoku City, Megamass continuously monitors the children's games as their paidiaic force often verges on disrupting the order of the work-a-day city. For instance, when an illegal cyber-pet guppy grows



Fig. 5.3: Perilous Paths through the City; Dennou Coil, 2007; Television.

into a whale occupying an entire block, overlapping with the domestic routines of the neighbors, Megamass responds by dispatching Saatchi police to control the situation. Even when lacking in subversive or hackerish intent, toys undercut the authoritative hold of the city.

As the series progresses, the children pursue more serious objectives in their games. 'I'm not playing at all', Yuko replies to her younger sister's entreaty to play with the older kids in an episode entitled 'Kanna's Diary'. Yuko and her friends tiptoe through dark alleyways and dart across traffic-congested streets, retracing a route retained in an electronic diary discovered in the glasses of Harakan's deceased girlfriend. Kanna's death is rumored to be the result of a fatal failure of the glasses' traffic mapping function. A mysterious figure on a motorcycle (a Megamass security officer), spies on the children during this 'game'. It appears that the corporation wishes to prevent sensitive information being revealed about the glasses safety through this re-enactment of a young girl's last recorded walk through Daikoku City.

Trailing behind each city dweller in Daikoku City is a cloud of information recorded by the glasses, a stream of data like that retained in Kanna's electronic diary. The cloud that follows users of an augmented city like Daikoku City is a divisible and profitably minable data profile of minable information, including income, eating habits, age, gender, genetic illness, criminal histories, education, and demographic patterns. In a capitalist, biocontrolled society, 'Individuals have become "*dividuals*", their information available as samples, data, markets, or "*banks*" (Deleuze).

Can there be any freedom in such a monitored existence? How does the average city dweller exercise power and freedom in such a near future biocontrol society? As Foucault explains power, contrary to a political science understanding of power residing primarily in the formation of a particular political system, that is regardless of whether Daikoku City is structured as a constitutional democracy, a communist authority, or otherwise, power flows at a 'microphysic' and 'capillary' level amidst the body of the population (*Power/Knowledge* 96). Even in tightly controlled society, power is not exclusively owned by a ruling class, or by an elite within the population, for 'power is exercised rather than possessed, it is not "the privilege", acquired or preserved, of the dominant class, but the overall effect of its strategic positions' (*Foucault Reader* 174).

It makes sense for a critique of biopower to take more 'capillary power' into account than formally designated political systems. Still, power flows along the paths, the 'strategic positions' that have been laid out in the apparatus, however circuitous. In other words, power runs and pools along channels and control strings that have often been designed and positioned by the powerful, those whom in the case of Daikoku City I have described as the biocontrollers. But rather than submitting passively, even a tightly bound populace pulls back on their strings. In the investigative game of following the path in Kanna's diary, the lingering data cloud from the girl's final day among the living serves in the interest of the apparatus' users rather than the Megamass Corporation, reversing the customary control relation between corporation and gadget user. Slipping from the biocontroller's hands, the data cloud is deployed against the corporation.

Furthermore, although powerful, the biocontroller is not free. Even those I have designated as powerful agents of biocontrol, like the Megamass Corporation or the toy police, are bound to those they control, occupying an ensnared position at the pinnacle of a tangle of strings. Freedom is not the same as wielding control and power over others, and therefore neither the "biocontrolled", nor the biocontrollers of Daikoku City, exercise the same amount of freedom that we might imagine with Arendt was enjoyed by a classical age member of the polis. As Arendt points out, although the despotic city tyrant sits in an empowered position over his subjects, he will never be as free as an ordinary citizen of the ancient Greek city-state, for the binds go both ways: 'To be free meant both not to be subject to the necessity of life or to the command of another *and* not to be in command oneself. It meant neither to rule nor to be ruled' (32). A small break with the ruling system of control is also a kind of exercise of freedom. And this is how a digital toy opens a pocket of liberty in the municipal cloud.

A Children's Biopolis

Instead of a populace subject to the controlled data experiments of a corrupt corporate-mafia, an idyllic, future biocontrol city might be a hyper-rational, sustainable green metropolis with efficient waste management, a well-supported arts and culture sector, offering gainful employment at corporations that develop ethical products and services. What I have suggested through a biopolitical analysis of the example of Daikoku City, is that technologically enhanced social control itself is a probable near future formulation of population governance, no matter how and by whom. Conditions in technologically advanced Asian metropolises like Tokyo, Hong Kong, Shanghai, Singapore, Kuala Lumpur, and Jakarta, are ripe for the imposition of a net of biocontrol upon urban life. Regional variations on the biopolitical control and power factors that I have addressed in the fictional example of Daikoku City, are also in evidence in London, in São Paulo, and in Rotterdam.

If life as a member of a population ruled by a technologically augmented, biopolitical system is on the horizon, in an attempt to reclaim some breathing room, resistant tactics in areas outside of what has been traditionally considered political exercise of the proper rights of citizenship become meaningful. In the twenty-first century, such democratic notions—once hypothetically available as a recourse in many nations—albeit costly and inaccessible in their formal, legislative implementation, may well be on their way to biopolitical extinction, or mere superfluity. To what extent do human rights matter, in the East or the West, when the bios' fears speak with greater urgency?

Although she arrived in the city as a stranger from afar, ultimately Daikoku City enmeshes Yuko in sticky ties to relatives and Megamass corporate employees, who materialize from the shadows of Yuko's prior adventures. Urban neural sensors and populated city streets are connected to the 'electronic brain' of Dennoi Coil through which bodies, power, and electrons flow. Flickering on the verge of self-awareness, the city does not quite arrive at the science fiction nightmare of an eradication of political and individual agency for the greater good of a Cyborgian bios. Even so, as a living, interwoven biomass connected by ties of corporation and family, the populace is subjected to the vigilance of biocontrol enforcers who tighten their hold as subjects mature. When the series closes, Yuko seems on the verge of assuming a woman's obligations and burdens after an epic, childhood stint as an ingenious female hacker and urban explorer, leaving the toys behind to the next generation of players. Maybe this is what it will mean

to come of age in a future East Asian city, where only children are afforded the relatively, unencumbered freedom and power of playing the city.

Yet, the impact of Iso's biopolitical conclusion, Yuko's growing up into a woman's apolitical societal obligations, is diminished by the more lasting impression left by the children's games and toys so convincingly imagined earlier in the animated series. Agamben and Virilio may well be correct in their predictions that the ultimate destination of the apparatus' relation to the biosphere is control. Yet, digital apparatuses, unlike older gadgets like televisions and radios, are two-way, toy-like tools whose objectives are continuously redefined by their more skilled users. Everyday objects may be augmented with virtual properties to aid a consumer in locating the post office or global fast food outlet, and that assist a boss in managing his offsite employees, or they might glimmer with a different potential, cyber-pets with human hands for ears, fishing poles with lines disappearing into buildings. Rather than a reduction of her life to the serial number 4-4-2-3 appearing in Yuko's dreams, a remnant of an intrusive research experiment conducted on her as a young child by her own grandfather, this number can be reinterpreted as a password to other possibilities. A potential for misalignment or elusion, a repurposing of state and corporate interests, lurks within the everyday, technologically augmented reality of the city.

This chapter's toys and games are examples of subterranean resistance and elusion performed outside the formulations of proper political systems. Rather than carrying out planned campaigns of biopolitical resistance, Diakoku City's children spontaneously enact impulsive ludic tactics. Approaching the entire city as a toy box, the children used their augmented reality goggles to repurpose the sidewalks and walls, create and program fabulous creatures, uncover concealed corporate and municipal data, risking non-sanctioned exploration of the biopolis' information infused passageways. Even under a soft regime of near future biocontrol, where city dwellers inhabit a *dennou* world, echoes of the polis' ancient freedom persist in the self-directed, unsanctioned, open-ended play of children.

6. A Tactical Sketchbook for Ludic Mutation

Ultimately I hope for this book to not only be critical and reflective, but also of practical use to present and future ludic mutators. The analysis is intended to contribute to a growing lexicon of artistic and activist approaches to game making and changing. I discussed the open-ended structure of what I referred to as unfolding games, a game approach that lends itself to creative exploration of identity and gender. I looked into various parasitic, symbiotic, and artistically noisy approaches to the modding of commercial games. I identified the broken toy tactic, a recipe for the deliberate sabotaging of gameplay for the sake of the message. I analyzed the harrowing mission's approach to fostering empathy for refugees and other groups in crisis. In the fourth chapter, I discussed a more artistic and disruptive approach to hacktivism, and located this approach within a broader spectrum of tactical orientations to digital hacktivism. In the fifth chapter, I discussed the chaotic force of toy-like, augmented reality gadgets.

As I look back over my examination of ludic mutation, a general pattern emerges across these tactics. The first discernible approach is playful change whose condition of possibility is a positive escape from societal strictures into an empty, free zone of play. The second tactic is playful change that negatively mutates, hacks, mods, or resists from an interior position within 'the system', whether it be from inside a game, a simulated model of the world, or an actual city. Over time, a productive, dialectic relation may evolve between these two ludic orientations—one tactic eventually feeds into the other. What initially seemed a messy contradiction between liberating escapism and critical resistance, could take on the appearance of a generative process, when playful change—ludic mutation—oscillates between positive and negative poles.

Why speak in terms of tactics rather than politics? From the realm of politics, I have appropriated theoretical concepts such as the Space of Appearance, the polis, and biopolitics for application to game changing. I also dedicated a chapter to critiquing obstacles encountered in persuasive rhetoric in political games, in articulating an activist message or protest to the playing public via a game. Most would agree that such concerns are political. But for addressing less deliberate and less goal-oriented acts of ludic mutation, or more artistic approaches to ludic mutation, politics is not always the proper term. Although from the start I made a case for a more

flexible definition of political action inspired by Arendt, when implementing an everyday twenty-first-century understanding of politics, characterizing all game changing as political would be misleading. For example, game modders may only achieve a temporary shift of a game character's gender identity, or they might hack a series of glitches and colorful noise into a militant shooting game. Ludic mutation is in many cases more of a subterranean, resistant power grab from the game, rather than a sequence of constructive political steps aimed at reaching definitive objectives such as changing public consensus about a law or a foreign policy.

Playful tactical behavior, rather than programmatic political behavior, is therefore often closer to the *modus operandi* of the ludic mutator. In her analysis of tactical media art and games, Rita Raley distinguishes between improvisational, incomplete acts of tactical resistance, and totalizing programs of politics, writing: 'Absolute victory is neither a desirable or truly attainable object for tactical media, which is why it will be possible for me to trace parallels between guerrilla warfare and systems disruption' (10). Her tactical media stance is closer to my negative tactic of ludic resistance from inside the corridors of the game. This interior stance is also similar to the noisy systemic disruption of Serres' 'Parasite', as well as to the Situationist *détournement* of the municipal plan.

In contrast, my other tactical maneuver of escape or elusion is more like a liberating furlough in the Space of Appearance, or a brief inhalation of freedom in a Temporary Autonomous Zone (Bey). These two tactical movements of resistance and elusion will loosely frame this concluding chapter as I contrast and synthesize the key arguments put forth across my investigation into the player's power to change the game.

Tactic #1: Elude

I began with an analysis of an example from the more positive, escapist, tactical orientation, of a digital folk art experiment of the early internet in identity play, what I called an *unfolding game*. What is unfolded in such open-ended games is an experiment in 'the who'. Digital dolls were removed from the typical domestic, dollhouse setting of women's and children's dolls. Untethered from social and gender roles, they mutated freely and queerly between poles such as man, woman, animal, human, and machine over the ten iterative frames of the digital doll-set. The remixable variability of the unfolding game, although not unique to digital media and preceded by other experimental artists' games, is further enhanced by digital anonymity

on the Internet that separates the player's real world identity from their doll-avatar.

I sketched an analogy between the ludic mutation of digital dolls to the political actions that unfold in Hannah Arendt's *Space of Appearance* (206). The *Space of Appearance*, a place for the disclosure of identity, is a more aesthetic, open-ended, and performative political gathering than what is usually understood as the political exercise of the demos (178). According to Arendt, the prime conditions that facilitate the emergence of such a space is a gathering where participants temporarily shed the roles of necessity, the hierarchical relations, both dominations and subordinations, of the practical, household, survival sphere of the *oikia* (33). I proposed that the separation between the anonymous digital game and the player's real life identity is a similar productive condition for a space of free and unfolding identity play.

Arendt contends that during the transition to modernity, the logic of the household hierarchy, spread from the feudal household to state-society, impinging on the possibility for the political exercise as was once enjoyed (at least by free male citizenry), in the ancient Greek city-state. She thus distinguishes her unique, classical-era inspired notion of political action from modern notions of politics which also lay claim to similar classical origins, such as representational democracy, policymaking, or legislature. She likens these more modern, means-toward-ends practical notions of politics to the housekeeping of the *oikia* at a grander, public scale (28).

Leaving the world of necessity, of societal strictures behind, players of unfolding doll games discover who else they might be. And unlike other multiplayer digital games on social platforms like Facebook or Massively Multiplayer Online Role-Playing Games, such digital dolls games are free of social monitoring and competitive ranking systems, the gamic mechanisms that replicate the socio-economic realm of necessity in the virtual world. Not all games, but only certain types of game genres, such as the unfolding game, open the door to liberating play.

Tactic #2: Mutate from Within

In other examples of playful change, rather than escaping the everyday world into a player-made utopia of egalitarian doll-makers, players find opportune ways to appropriate, mutate, and destroy dominating game forms from within the belly of the beast. Relations between players and highly developed, commercial game products have a more impure, involuted,

and hierarchically-nested character than unfolding games of identity play. Michel Serres' figure of the Parasite was key to understanding a variety of game changing tactics initiated by players who volunteer their efforts in the modding or modification of commercially produced First-Person Shooter Games.

Like Serres' rats, who invade the well-stocked kitchen of a wealthy tax collector, the game modder chews on the walls of a technically sophisticated game engine (3). The commercial Triple A game, comparable in its polish and production value to a Hollywood film, is the product of a professional division of labor at the game development house among game designers, producers, programmers, 3-dimensional modelers, animators, quality assurance testers and graphic artists. Modders, who volunteer their self-taught skills to remaking the game, leave a mark on this industrial product, customizing characters and interfaces, as well as remaking entire levels and virtual worlds. I referred to the mutated characters, game levels and play styles, the digital-cultural units of the game that circulate between the commercial industry and the modder's hands, as play material.

Relations between players and the game industry can be understood as parasitic, when play material is appropriated from either the commercial game or alternately from innovative mods. At other times, rather than parasitic theft, symbiosis best describes the reciprocal gifting of play material. Mods are shared among modders themselves and also cross over into iterative commercial game releases, such as the variations on the gender that evolved over sequential versions of Quake 1–3 and its player mods. But not all gifts of play material are readily absorbed in their original shape into subsequent commercial game releases. Game modifications that are too homoerotic, feminine, or radically novel in game form compared to what came before become unwelcome gifts.

And so, ultimately, even though critics of digital share economies worry that the voluntary efforts of modders are being exploited by the immaterial circulations of Information Capitalism, I concluded in relation to modding somewhat contrarily, that not enough voluntary player gifts are appropriated, and in fact mods and customizations are quite often deliberately ignored. If more diversity in gaming culture is desirable, if this form of media entertainment were to open the gates to a greater variety of players and game styles, then player customization of games must be encouraged. Closer relations between players and companies should be fostered.

Taking a longer view on changes within gaming culture, I also articulated a role that chaotic artist-made mods contribute to game evolution, despite their seeming negation of the game. Artists have radically taken apart

First-Person Shooter games so that they are no longer even playable as games, reducing them to abstract surges of pixels and noise. Although such mods have been criticized for a lack of constructive contribution to gameplay, these chaotic hacks clear the slate of the genre for later games to come.

Tactic #3: The Broken Toy Tactic

Midway through, I moved from the relatively enclosed realm of computer gaming culture, to conducting an analysis of activist critiques of the world's problems leveraged at the broader public through games. No longer just a form of mere entertainment, increasingly, the game is spilling outside the borders of Huizinga's 'magic circle of play' into everyday life, into training exercises, education, propaganda, persuasive political campaigns, and other regions. War gaming, ludic activism, and urban mobile games are all instances of a sometimes troubling tendency for aspects of the world to become gamified that I discussed in the introduction. The first instance of such persuasive gaming that I considered was the confluence of activism and play in a genre of serious games I referred to as the 'activist simulation game'.

I compared two activist games that both critique harmful processes, first a gamic depiction of a cycle of war violence and then a simulation of an environmentally harmful fast food operation. I concluded that modeling an allegedly harmful operation in the game risks nullifying the game-maker's intended critique of the operation. I drew on Heidegger's 'everyday sight' to describe the way that functionality, no matter how ethically problematic, is easily accepted into a common sense, necessary view of the world's workings (107). Rainforests are mowed down for cattle which are then slaughtered and turned into colorful hamburgers and if the game plays too well, players do not object to the harmful effects of the fast food operation on climate change, animals, or workers. When such dynamic, practical operations are modeled in the abstracted, miniature sphere of the toy world, they are normalized within everyday sight.

In order to counter this spell, the game must be broken, either by the player, or by a time bomb installed into the game by its maker, such as the pre-programmed interruptions that solicit charity donations in Susanna Ruiz's *Darfur is Dying*. I referred to this tactic as the broken toy tactic. Frasca's *September 12* forces the player to lose when he tries to win at eliminating the terrorists. Against the expectation of the player, the game's air striker 'equipment' generates more terrorists when the player is skillful at eliminating the initial terrorists. Dislodged from the certainty that the

game can ever be mastered, no matter how well he plays, the player sees the process that Frasca is trying to bring to light, an escalation of violence exasperated by the War on Terror. This break in the game's logic of rewards and punishments is necessary to bring the message home to the playing public, and to cut through the obscuring ordinariness of everyday sight.

The toy world's artificial operationality is soothing, consisting of an ongoing system of interlocking circulations and functions like a model train set. Breaks in the game's flow are unsettling, they discomfortingly remind the player of other immanent stops and unfinished endings, including the inevitability of her own approaching mortality. And yet, such breaks can also lead to a deeper questioning and evaluation of the wrongness or rightness of the broken toy. Therefore, the negative, critical power of when things break down is especially important with such activist games, and uncovers a methodological blind spot that can easily be missed by the positive structuralism of game studies. Furthermore, an underlying *no play imperative* is evident in such self-sabotaged games, a stance of disengagement and refusal to participate in a harmful operation of the exterior world.

Artists' hacks of commercial shooter games, activist simulation games that deploy the broken toy tactic, and the Situationist's playful *détournement* of the city, all call upon the negative, resistant, critical tactical approach to ludic mutation. In Debord's build up to his initial conceptualization of the Situationist game, he highlights 'Dadaist negativity' as an essential component of future artistic and political movements: 'The dadaist spirit has nevertheless influenced all the movements that have come after it; and any future constructive position must include a dadaist-type negative aspect, as long as the social conditions that impose the repetition of rotten superstructures—conditions that have intellectually already been definitively condemned—have not been wiped out by force' (Report). Although valid on their own terms as tactics even outside of Avant-Garde art manifestos and movements, such ludic critical resistance, the destruction of and negativity to what came before, opens a space for a later more 'positive' constructive game.

Tactic #4: Artistic Hacktivism

The hacktivist protesters who detourn militant game cities, staging obstructionist virtual anti-war protests on digital streets, are also tactical heirs to the more 'negative' culture jamming template proposed by Debord. And although more of occupiers than resisters, military game developers and players also tactically repurpose urban space via play, transforming cities

into urban battlefields. The last chapters shifted the setting for the analysis of playful change to the city, where a contest is being waged over which type of games will be played on the digitized and/or augmented streets.

Both the Situationist-style artistic interventions and the military game interrupt the everyday mercantile flows of the city. In the military takeover, the tactical maneuvers of urban warfare and counter-terrorist exercises are practiced on the digital streets of the game. Snipers search out opportune vantage points from rooftops, and foot soldiers hide behind abandoned cars, repurposing what was once civilian terrain. In the Situationist game, the everyday flows of the city are also detoured at key nodes, and the systems set in place by the municipal authorities, such as subway systems and other urban circuits, are mapped, explored and momentarily diverted. When Information Age hacktivist artists adopt a hacking, resistant, or parasitic relation to the dominant game or encompassing system at hand, the city starts to seem more a fluid, hackable technology than a concrete solidity.

Urban military theories refined in think tanks by the growing securities industry are tested in game simulations. Asymmetrical warfare, the war of either a few terrorists or of a small team of imperial commandos, amidst a larger civilian population, is prevalent in both more entertaining Militainment games as well as in serious games that prepare for actual deployment. These games train players to rescue hostages and refugees, among other 'Military Operations in Urban Terrain'. The objectives of such missions move beyond that of mere battle, from death to life, as modern military purview expands to life support, policing, combat trauma therapy, and biocontrol. Symptomatic of an imperial, militant society at war abroad and amidst its own population, military simulations of the War on Terror approach Full Spectrum penetration via games.

Tactic #5: Reprogrammable Toy Gadgetry

My exploration of playing the city concluded with an analysis of fictional games played by child-characters who wear augmented reality glasses in Mitsuo Iso's Japanimation series of *Dennou Coil*. In a science-fictional, near future Japanimation city, Iso envisions a soft net of total population control imposed upon urban space through gadgets and augmented reality infrastructure. Urban play in this last example became both acts of resistance and elusion from civilian rather than military biocontrol forces. As I described the games played by the children of Daikoku City, I again found myself oscillating between negative and positive tactical poles of ludic

mutation. The child-characters play games that escape the surveillance of the augmented urban grid, hiding behind protected, constructive barriers, recalling Arendt's notion of free political exercise that can only unfold behind a protective shield or fence. In the protected anonymity of this 'obsolete space,' players are, sometimes dangerously, free to experiment with playing with augmented reality toys and constructing artificial life forms, shielded from the intrusive, controlling touch of their guardians, the insidious Megamass corporation, and the municipal-corporate toy police who roam the city.

In other games of Daikoku City, the players' game changing is a more negative, critical hacking of the dominant system at hand, a game played by children against the biopolitical city or the corporation, similar in orientation to the interventionism from within the city-system of the Situationists. The child-hacker characters unearth troubling rumors of unethical biotechnological practices, following electronic trails through Daikoku City's streets and alleyways to hospitalized, human experiments. And through information retained in an electronic diary application, they discover the site of a fatal traffic accident caused by a malfunction of the corporation's technology. The children turn the same apparatus that was put in place to control the populace, against the Megamass Corporation itself, using the cloud to make the corporation's schemes and mistakes more transparent.

The *biocontrol* function of the mobile apparatus that filters and manipulates daily urban life in fictional Daikoku City correlates to the smart mobile devices that increasingly track members of present day, information society. Technological developments are rapidly catching up with science fiction in the Augmented Reality glasses devices currently being developed by companies like Google, Microsoft, and Samsung. The cloud of information that follows users of such devices can potentially be exploited by state, corporate, marketing, and other controlling agents. The public concerns with privacy violations that arose in response to the Google Explorer glasses pilot study may be an early warning of other possible power abuses with similar technology on the near horizon.

Although by no means uniform among its primary thinkers, biopolitics is useful for explaining this increased tightening of population control in the twenty-first century that may well persist in a near future mobile, networked society. Technologically enhanced population control goes hand in hand with a biopolitical relinquishment of everyday freedoms that are sacrificed to the urgent-seeming needs of the bios—needs such as population security, health, and economic vitality. The biopolitical critique does not privilege only one force of oppression from the realm of the bios,

and therefore falls outside the traditional binary of left vs right. Regardless of who is the controlling agent of life—for instance corporation, state, or society—the danger of what I referred to as the *biocontrol society* lies in the easily exploitable control apparatus itself that has been wired into the city, programmed to track and record the motions of each city dweller. But even though a near future city treats its entire populace as children in need of guidance and control, freedom is exercised through children's play. The circuitry of the apparatus of control is reprogrammable, and the playing of toys, unlike most games, is open to shifts in objectives. As Callois points out, a toy can be played in myriad ways.

From constructive play in separate free zones, to critical negative hacking from within the game system, the ludic mutator has recourse to a variable toolbox of tactics. Much of this game changing takes place below politics' radar. In certain situations, this obscurity may work to ludic mutation's advantage, for under a tightened implementation of technologically enhanced biocontrol, whether more military-themed or more civilian, such ludic tactics may be among the few responses still available to us—and certainly are among the more entertaining. Even when the games of the powerful and the aggressive dominate, players can still modify, transform, hack, rewrite, and deliberately obstruct the game.

Notes

Introduction: The Player's Power to Change the Game

1. Katie Salen founded this game-centered school, which has recently expanded from an elementary school into a high school in New York City.
2. Asymmetric warfare, discussed in Chapter Four, refers to a disproportionately small amount of either terrorists or soldiers in comparison to a larger civilian population.
3. In such gold farms, there is also evidence of transnational influences between regional and global game economies that merit further investigation.
4. Casual games are computer games of short duration that demand less skill at the outset than more 'hard core' game genres. Casual games are often played on mobile phones and tablets, and the settings tend to be abstract or cartoonish.
5. 'Augmented Reality' or 'Mixed Reality' refers to the mingling of informatic data with geographic locations, such as a mobile phone camera application that when pointed at a building, overlays icons of businesses contained in the building onto the phone's camera view.
6. Post-mortems are written, subjective accounts of the development process of a game that are made public only after the commercial release of a game to market.

Lightness of Digital Doll Play

1. KiSS dolls have become a relic of media archaeology, viewable only on outdated computer operating systems.
2. I discuss skinning and modding in greater detail in the next chapter.
3. Although generally I will employ 'ludic' throughout this writing to encompass both chaotic (paidiaic) and rule-bound play (Calleo 28).
4. The Creative Commons is an online archive of free digital images, sounds, text, software and other items.

Game Modding: Cross-Over Mutation and Unwelcome Gifts

1. Northwest Coast Native American tribes hosted spectacular potlatch celebrations where abundant goods, blankets, tools, and jewelry were given away with the expectation of future reciprocal festivals, however unspecified. Mauss anthropological treatise compares the potlatch economy of these Native American tribes to similar systems in Polynesia and among the Maori. He contrasts the gift economy to the calculated exchanges of a Western economy founded on private property where producers are more alienated from their products, as well as from any social bonds to the recipients of their goods once their merchandise has been sold (42).

2. A few years after the commercial game release, Id Software also gave away the entire source code of *Doom* on the Internet.
3. In a Real-Time Strategy game, players gather resources and build military bases, placing units of miniature toy warriors in strategic locations on the synthetic terrain. The *DoTA* mod offered players a variation on RTS (Real-Time Strategy) rules, introducing a more powerful 'hero' character and allowing for shorter matches of an hour in length than the original game's potentially day-long battles. The *DoTA* mod is an accumulation of many smaller alterations on the game rules of the original *Warcraft III* game and it is difficult to pinpoint one modder who is responsible for the final resulting mod.
4. I will devote more attention to *The Sims* in my analysis of simulation games in Chapter Three.
5. Additionally, *Second Life* players self-organize ludic contests, as well as artistic political and theatrical events. A contingent of *Second Life* players also use the game for social and flirtatious interactions between their bizarrely and/or lasciviously dressed avatars.
6. Typically, a professional game design team builds a game from a pre-planned, written game design document with such a theme carefully worked into all of the game components.
7. While teaching with *Minecraft* in my Critical Game Design class, I found many helpful YouTube tutorials posted on the internet explaining technical topics specific to the game. Players explain the red stone circuitry that adds interactivity to Minecraft, so-called mods (which in the context of *Minecraft* refer to programmed add-ons to enhance gameplay and standard features), and other arcane techniques.
8. The genre does contain a few notable exceptions, for instance in *Eve Online*, players are cast in the role of outer-space traders who customize and assemble the configurations of their own spaceships.
9. Modders of *World of Warcraft* interfaces do share screenshots of their layouts with each other on gaming forums and websites outside the actual game itself.
10. Switch was a graduate student new media art journal produced by graduate students at the C.A.D.R.E. Institute at San Jose State University in California, USA.
11. For instance, in 2011, Norwegian Anders Behring Breivik's habits of game-play were tied in media reports to his cold-blooded fatal shooting of eighty teenagers in an island summer camp meeting of the Swedish Labor party.
12. Some female *Quake* clans like PMS also permitted male members to join—as long as they were willing to play as 'towel boys'—male avatars wearing nothing but clan designed towels.
13. During the online crowd-sourcing campaign to raise funds to produce the video series, Anita Sarkeesian was the target of a misogynist gamer backlash against her and other women in gaming. Although ostensibly targeting abuse of crowd-sourcing funds, the criticism was launched only against

- women designers and women critics. The controversy is commonly referenced with the Twitter hashtag of #Gamergate.
14. Rosello does later propose a theory of stereotype 'recycling' in *Declining the Stereotype*.
 15. And only recently is it even possible to learn to be formally educated in the making of games—many professionals in the industry began as amateur modders.
 16. Contrasting to his coalition between Action and Intellect, Virno characterizes Action's 'coalition' with Work as capitalism's proprietary corruption of the open evolution of knowledge and culture.

Activist Game Rhetoric: Clockwork Worlds, Broken Toys, and Harrowing Missions

1. On a weekday visit to Madurodam in June of 2011, the aging toy city seemed forgotten by the Dutch, although it was still visited by bus loads of Asian tourists.
2. The term simulation also invokes post-modern philosopher Jean Baudrillard's theories of simulation and 'simulacra', especially in reference to Disneyland and suburbia. Yet, Baudrillard's interest in simulation seems primarily bound up with describing the artificiality of a post-modern capitalist condition that has replaced authentic experience, a mourning for a loss of authenticity. Simulation in computer games, on the other hand, like in computer science, takes the artificiality of the model as a given without moral qualms—even as such models attempt to improve their fidelity to real life processes assumed to still be running outside the game.
3. What is especially convenient about the bright-colored and cartoon-like toy aesthetic favored by many activist game-makers is that this so-called casual game-look demands considerably less effort to produce than a photorealistic game.
4. Heidegger is often considered an apolitical philosopher, or judged for his Nazi era actions as a university administrator in Freiburg, and therefore might seem distant from political critique or philosophy. Even so, his deconstructive philosophical method was highly influential for critical theory in the latter half of the twentieth century, and informed, for instance, the deconstructive methodology of Jacques Derrida. Also, Heidegger's phenomenological framework impacted continental political philosophers like Hannah Arendt and Giorgio Agamben.
5. In addition to uncannily bringing to the fore 'the who's' mortality and temporal existence, the clearing illuminates the operations of everyday life, and allows for the projection of possible future actions upon return to everyday life's operations (*Being and Time* 185).
6. Here I take cues from Hannah Arendt's adaptation of Heidegger's critical 'clearing' views of daily life at the same time as she eschewed his somewhat

- disparaging 'philosophical' attitude toward the collective world and the 'idle talk' of 'the They'. In the *Human Condition*, Arendt instead proposes a more nuanced framework for understanding the collective world's actions.
7. A confidential and disturbing military video recording released by the organization WikiLeaks in 2011 revealed a 'solar Eye' view from above of United States air force pilots targeting missile drones at civilians on an Iraqi street, as if the Iraqis were characters in a computer game. The jaded boredom of the pilots is momentarily alleviated by the remote thrill of a few kills of the minute, ant-sized Iraqi citizens.
 8. I will discuss entertaining war games in the following chapter at greater length.
 9. Frasca is aware of this tension—the introduction to *September 12* provokes, 'This is not a game, this is a simulation'.
 10. What is relevant from Huizinga's much cited magic circle for this analysis of simulation games is the relation between procedures running inside the game to those outside the game. Worldly goings-on, when transposed via simulation to the game sphere or 'magic circle', become magically enchanting because they are miniature toy-like abstractions. My application of the magic circle to contemporary simulation games therefore is not intended to imply that such digital games are magical, sorcerous rituals, as in Daniel Pargman and Peter Jakobsson's (2008) critique of the contemporary usage of Huizinga's term. The movement of causal loops within the game exerts the more mundane, everyday magic of the toy miniature.
 11. Paolo Pedercini revealed in interview that he purposely designed the game to be impossible to win in order to discourage sustained play; yet, in my observation this difficulty only challenges skilled players to continue playing the game.
 12. Although interactivity in games is often seen as empowering, especially compared to just standing back and observing the motions of a model toy world like Madurodam, when managing a simulation via an instrument panel, the player still follows the game's predetermined, operational logic.
 13. Heidegger's corporal terminology of the ready-to-hand and the presence-at-hand is true to his phenomenological methodology that privileges embodied existence in the world, (and opposes metaphysics and philosophical abstractions). Worldly phenomena are filtered and perceived through hands, eyes, and ears.
 14. Although Heidegger does point out that in modernity, technologies like the radio bring the components of the 'workshop' into closer proximity (*Being and Time* 140). The workshop is a functional, dynamic relation between disparate components and places (latch, door, hallway, street) that erases the spaces in between these components, dividing contiguous, Cartesian, mathematical 'space' up into 'places'.
 15. These servicemen, although playing the less vulnerable, more dangerous role of professional combatants in the service of their nation, also are dam-

aged by the conflict. They are usually young men of lower income backgrounds who after enlisting find themselves engaged in conflicts far from home and family.

City as Military Playground: Contested Urban Terrain

1. In this chapter, I will limit my interest in 'biocontrol' of a city population to its military applications—in the following chapter, I will discuss more civilian types of digitally augmented urban biocontrol.
2. Drawing on Benjamin, Arendt, and Habermas, Stahl describes a depoliticization of 'the imperial subject', who is distracted by playing war games from engaging in a public, democratic debate on war (12). He suggests that at the same time as this withdrawal from public decision-making occurs, the invitation to take up virtual arms, (and here Stahl seems to assume a North American player), ironically exhibits the nostalgic appeal of the citizen-soldier's right to bear arms written into the United States constitution. Implicit in his argument is that the appeal of taking up arms as a constitutional right is a nostalgic, rebellious gesture since guns no longer exert a significant power check on a military-state apparatus containing arsenals of nuclear weapons (12).
3. An isolated urban locale for play combat in a computer game, like a town, neighborhood or a bridge, is referred to as a level or a map. The title of the Suburbia map oddly conjures American suburbia, unlike the Middle Eastern city quadrant represented in the game.
4. In Chapter Two, I described the beginnings of the FPS (First-Person Shooter) genre, games where the player runs through dark, maze-like passageways concealing demons and aliens.
5. More recently the military has shortened the term to just 'Urban Operations'.
6. These digital civilian ghost towns also curiously recall Lewis Mumford's contention that prior to the human city, the first cities were constructed as memorials to the dead (7).
7. While other urbanists, in an ongoing debate referred to by Virilio, hold that the ancient city was largely founded on commerce and Mesopotamian agriculture. Illustrative of this more agricultural, commercial camp, Mumford proposes that a Neolithic 'women's village' of pottery, grain containers, and sacred womb-like 'enclosures' preceded the man's city of more sophisticated tools and aggressive male war gods (15–17, 27). Virilio, on the other hand, sides with those maintaining that the city has military, rather than agricultural or commercial beginnings.
8. The violence erupted in a European city distant from the official war zone of Syria where the European terrorists were radicalized—although at the time of the attacks, France, in collaboration with its allies, had been conducting airstrikes in Syria.
9. The post-cold war United States military overhaul and upgrade was endorsed by former United States Secretary of Defense Donald Rumsfeld.

10. Stahl argument contends that consumers are also democratic citizens with potential influence on the conduction of United States backed war efforts. Thus, their choice to engage with military entertainment is parcel to a political stance.
11. The makers of *America's Army* happened upon a convenient pre-existing game form in *Counter-Strike* for generating recruits to the post-9/11 military build-up in the States, yet *Counter-Strike* is not identical to *America's Army*. For instance, one obvious distinction is that in *Counter-Strike*, the player can select to play on the side of the terrorists' team, to set the bomb, to take hostages, etc., whereas in *America's Army*, no matter which of the two teams the player selects, the player takes on the role of an American 'imperial' counter-terrorist enforcer. While I agree with Stahl that 'the interactive war' can 'hardwire an imperial subject' into a battle-ready and pro-war configuration, we still need to take care to be attuned to the differences between civilian and military game-makers of battle games (Stahl 4).
12. The *Modern Warfare* franchise initially released Second World War-themed militainment games and later moved on to producing games with scenarios corresponding to more recent and hypothetical, near future terrorist conflicts in cities around the world.
13. This is the same university with a respected game design program where *Darfur is Dying*, the serious game discussed in the previous chapter, was designed by students in the School of Cinema.
14. Such alliances are not unique to the United States—serious military games have been developed in research collaborations between educational institutions and military and government agencies in Europe and Asia as well.
15. The passive consumer of Debord's *Society of the Spectacle* is entranced with diversions of the escapist commodity 'spectacle'. A combination of advertising, entertainment, and consumerism purportedly diverts the inhabitant of a capitalist system from taking on a more active role in society and culture. Individuals are alienated from each other by such media, through social relations 'mediated by image' (2).
16. Attesting to the transformative potential of such games, with youthful fervor Debord writes, 'Our action on behavior, linked with other desirable aspects of a revolution in mores, can be briefly defined as the invention of games of an essentially new type' ('Report').
17. The experimental United States music band Negativland coined the term culture jamming in 1984, writing on a track of an album, 'As awareness of how the media environment we occupy affects and directs our inner life grows, some resist. The skillfully reworked billboard [...] directs the public viewer to a consideration of the original corporate strategy. The studio for the cultural jammer is the world at large' (Wikipedia).
18. To ping is a common preliminary to a hacker attack but the ping itself does not penetrate the server—the ping is comparable to a knock on the door of the server's ports.

19. Delappe's sustained and tragic memorial garnered vicious emails from both players and indignant American family members of soldiers who interpreted the project as disrespectful of their relatives sacrifices. Even so, *Dead in Iraq* is a war memorial that remembers the deaths of certain war casualties, those of US combatants, while excluding the names of deceased Iraqi civilian casualties and enemy combatants. Delappe later organized a project titled *The Iraq Memorial* where he invited artists to design proposals for memorials for the largely uncouncted, Iraqi civilian war fatalities.

Toys of Biopolis

1. This Japanimation series, ten years in the making, was Mitsuo Iso's television debut, although beforehand he had contributed to scenes of other well-received animation series like *Gundam* from 1985 and *Ghost in the Shell* from 1995.
2. And presumably, even children are also capable of responding to the more serious topics explored in the series.
3. Nintendo 3DS players placed iconic marker cards on a surface like a table or wall to designate where digital game components like characters and obstacles would appear in the camera viewfinder.
4. I focus primarily on the cartographic features of *Pokemon Go* and the game's reliance on Google Maps in a chapter titled 'The Geopolitics of *Pokemon Go*' in *Global Players and Game Developers*, a book manuscript still under revision.
5. Industry and research are presently developing the requisite server infrastructure in pursuit of the fabrication of persistent, wireless accessible data clouds that augment mobile users with online information wherever their location. Despite this user-empowering rhetoric, the information contained in the cloud is also already being mined by corporations, marketers, and government agencies.
6. The polis, not as cumbersome to govern as an entire nation-state, is often portrayed as an ideal formulation of democracy.
7. *Bladerunner* is based on the science fiction novel *Do Android's Dream of Electronic Sheep?* by Phillip K. Dick.
8. These differences in themselves have provided a rich topic for exploration, such as Nikolas Rose and Paul Rabinow's essay 'Biopower Today'. Rather than ascribing the major distinction between Foucault and Agamben's biopolitics, as they do, to historical vs philosophical methodology, I would argue that their major divergence is in the Zeitgeist of sovereignty or state intervention in biopolitics. In Foucault, it is during the early modern era that the state's disciplinary governmental institutions come to shape bodies and subjects, replacing the prior sovereign ruler. Later for Foucault, the state recedes from influence, taken over by market-driven, biopowered more 'capillary' power operations. Agamben on the other hand underscores the persistence of the state's decisive hold over life as endemic to the

- modern era and onward to today, observable in cases like the prison camp of Guantanamo Bay.
9. At the end of Foucault's lectures on populations, territories, and biopolitics society and economy merge into a quasi-organism with life-like properties to be tracked and predicted by statisticians and sociologists, followers and forecasters of the ebbs and flows of biopower. Biopower here includes the life-like properties of systems beyond the strictly human bios. Statistical data provides fuel for research and market developments, as well as guiding the state in planning its strategic operations.
 10. And contrary to the misleading name, Agamben's originary *Homo Sacer* of the modern biopolitical is also not sacrificable to the gods. Agamben's 'sovereign exception' doubly excludes *Homo Sacer* from either more elevated life statuses, that of a sacrificial candidate or of a citizen, for 'This violence—the unsanctionable killing that, in his case, anyone may commit—is classifiable neither as sacrifice nor as homicide' (*Homo Sacer* 83).
 11. Agamben's biopolitical analysis also draws heavily from Nazi era political theorist Carl Schmitt's 'state of exception'. During the Weimar Republic, the possibility for an emergency suspension of legal rights of citizens was written into the law. The Nazi regime later exploited this clause to strip Jews, Gypsies, and gays, of citizenship.
 12. Arendt's critique is somewhat similar to Foucault's subjection by disciplinary governmental institutions in that it similarly marks a transition from feudal economy to modern state mentioned in Foucault's later lectures on biopolitics, (although Foucault does not reference Arendt).
 13. The notion of a population in itself, as Foucault points out in his late lectures, is a modern phenomenon.
 14. Agamben's essay neglects to mention the wireless, network infrastructure supporting the use of the mobile phone, what we might think of as the mobile gadget's invisible partner in apparatus crime. In Daikoku City, the mobile glasses would be useless without wireless access to the tags of information wrapped around the urban topography.
 15. The series designates the term 'obsolete space' for off-the-grid, uncontrolled space. When obsolete space is no longer properly aligned with everyday physical reality, it is outside the control of Megamass Corporation. Obsolete space, in its lack of correlation to the everyday world of objects and places, in its imaginative departure from the rules, temporality, parameters, and scale of physical reality, seems to offer a corollary to the freedom of the early Internet, an escape to freer virtual zones divorced from the 'sphere of necessity', the demands and purview of commercial interests, family and work, a line of argument I explored in Chapter One.
 16. Some of the medieval 'children' of Pieter Brueghel's painting are depicted with the stature and stooped backs of older adults, suggesting that the entire town, not just children, were participating in this playful, urban mayhem.

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